THE SEER PROGRAM

CODE MANUAL

Third Edition
January 1998

CANCER STATISTICS BRANCH
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DIVISION OF CANCER CONTROL AND POPULATION SCIENCES
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| Changes marked | reflect differences between the second and third editions of this manual.

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Third Edition
January 1998

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PREFACE TO THE THIRD EDITION

This edition of the *SEER Program Code Manual* is the first major update of the document since June 1992, when the codes from the *International Classification of Diseases for Oncology, Second Edition* (ICD-O-2) and other minor changes were incorporated. This edition is the first complete review and revision of the text and guidelines since its original publication in 1988 and is based on feedback and comments from users in both SEER registries and non-SEER registries that follow SEER guidelines. At the request of many users of this manual, more examples and clarifications are included in this edition to illustrate coding guidelines and other rules for assigning codes.

The work of reviewing the previous material and interim revisions was performed by three Working Groups who conducted business by telephone conference, fax and mail. We are grateful to them for the time they spent performing in-depth review and marathon phone calls. The names of all Working Group members appear on the acknowledgement page of this edition, and we thank them for their participation in this project.

The third edition of the *SEER Program Code Manual* incorporates changes to data fields approved by the Uniform Data Standards Committee of the North American Association of Central Cancer Registries between the publication of the second revision (1992) and December 31, 1997. Changes are effective with cases diagnosed January 1, 1998, and after, except as noted. Policy and coding differences between the second edition and the third edition are marked with | change bars in the left margin of each page. Editorial revisions, new examples, and code updates are not marked.

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COMPUTER RECORD FORMAT

The format of the data to be submitted to the National Cancer Institute by the participants of the SEER Program is as follows:

Section	Field Number		Length	Char. Pos.
I	BASIC RECORD IDENTIFICATION			
	I.01	SEER Participant	2	1-2
	I.02	Patient ID Number	8	3-10
	I.03	Record Number	2	11-12
II	INFORMATION SOURCE			
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	II.02	Field Not Used	10	14-23
III	DEMOGRAPHIC INFORMATION			
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		C Coding System for Census Tract	1	33
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	III.05	Age at Diagnosis	3	45-47
	III.06	Race	2	48-49
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	IV.03	Primary Site	4	80-83
	IV.05	Laterality at Diagnosis	1	84
	IV.06	Morphology		
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	IV.09	Diagnostic Procedures (1973-87)	2	95-96
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	or B -	2-Digit Site-Specific Extent of Disease (1973-82)	-	
	C	13-Digit (Expanded) Site-Specific Extent of Disease (1973-82)	13	101-113
	D	4-Digit Extent of Disease (1983-87)	4	114-117
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The *SEER Program Code Manual* is a limited explanation of the format and definitions of the computerized record routinely submitted by each SEER Participant to the National Cancer Institute (NCI). It is, therefore, concerned only with providing description in detail sufficient to achieve consensus in coding the routinely required data. In no way does this code manual imply any restriction on the type or degree of detailed information collected, classified, or studied at the local level.

The SEER Program is a continuation of two preceding NCI programs, the End Results Group and the Third National Cancer Survey. The working or operational definitions in these two large studies were not identical in all respects. One of the purposes of this manual is to clarify the definitions in areas where the traditions are different. Whether or not there is theoretical agreement regarding the best or proper interpretation of a particular concept, there should be a clear understanding of what has been agreed upon as a basis for common data. The interpretations presented here represent the decisions in force at this time. See Appendix E (a separate document) for rules applying to cases diagnosed before the effective date of this manual.

What is a Diagnosis of Cancer?

The simplest way to state the answer is that a patient has cancer if a *recognized medical practitioner* says so. Then the question changes to "How can one tell from the medical record that the physician has stated a cancer diagnosis?" In most cases the patient's record clearly presents the diagnosis by use of specific terms which are synonymous with cancer. However, not always is the physician certain or the recorded language definitive. SEER rules concerning the usage of vague or inconclusive diagnostic language are as follows:

Using Ambiguous Terminology to Determine Reportability

Consider as diagnostic of cancer	***NOT considered diagnostic of cancer****
apparent(ly)	cannot be ruled out
appears to	equivocal
comparable with	possible
compatible with	potentially malignant
consistent with	questionable
favor(s)	rule out
malignant appearing	suggests
most likely	worrisome
presumed	
probable	* without additional information
suspect(ed)	
suspicious (for)	Do not include patients who have a diagnosis consisting only of these terms.
typical of	

Exception: If cytology is reported as "suspicious," do not interpret this as a diagnosis of cancer. Abstract the case only if a positive biopsy or a physician's clinical impression of cancer supports the cytology findings.

If a phrase such as "strongly suggestive" or "highly worrisome" is used, disregard the modifier ("-ly") and refer to the guidelines above regarding the primary term.

How Changeable are the Diagnostic Items?

Most of the diagnostic information items are restricted to information available or procedures performed within the time limits defined for each item. However, with the passage of time the patient's medical record gets more complete in regard to information originally missing or uncertain. It is therefore established practice to accept the thinking and information about the case at the time of the latest submission, or the most complete or detailed information. Thus, there may be changes in the coding of primary site, histology, extent of disease, residence, etc., as the information becomes more certain.

Sometimes, careful re-examination of medical records indicates that a case originally reported as cancer was not, in fact, a malignancy. This occurs most often if ambiguous terms are used or if the case was ascertained on the basis of a death certificate. Such cases must be deleted from the file and the sequence number of any remaining cases for the same person adjusted accordingly.

On the other hand, if upon medical and/or pathological review of a previous condition the patient is deemed to have had cancer at an earlier date, then the earlier date is the date of diagnosis, i.e., the date of diagnosis is back-dated.

What is Cancer so far as Reporting to SEER is Concerned?

All cases with a behavior code of '2' or '3' in the *International Classification of Diseases for Oncology*, Second Edition (ICD-O-2) are reportable neoplasms. The following are exclusions:

8000-8004	Neoplasms, malignant, NOS of the skin (C44.0-C44.9)
8010-8045	Epithelial carcinomas of the skin (C44.0-C44.9)
8050-8082	Papillary and squamous cell carcinomas of the skin (C44.0-C44.9)
8090-8110	Basal cell carcinomas of the skin (C44.0-C44.9)
	Carcinoma in situ (any /2) and CIN III of the cervix (C53.0-C53.9) (cases diagnosed after January 1, 1996)

Note 1: The above lesions ARE reportable for skin of the genital sites: vagina, clitoris, vulva, prepuce, penis, and scrotum (sites C52.9, C51.0-C51.9, C60.0, C60.9, C63.2).

Note 2: If a '0' or '1' behavior code term in ICD-O-2 is verified as in situ, '2', or malignant, '3', by a pathologist, the case is reportable.

Note 3: Central registries reporting to SEER which receive reports of basal or squamous cell skin cancers should not sequence them with other malignancies and should not report them to SEER.

Note 4: In situ (/2) cancers of the cervix diagnosed after January 1, 1996, should be assigned sequence number '98' if collected. All other primaries for the patient should be sequenced as though the cervix in situ primary does not exist. See Sequence Number--Central.

Note 5: The American College of Surgeons Commission on Cancer (ROADS, page 13) requires the reporting of skin cancer (C44._) with stage group II, III, or IV. Some of the software used by hospital registries will not allow the screening out of these cases before transmission and they are being reported to some central registries. They are NOT reportable to the SEER Program.

What Dates of Diagnoses are Included in the SEER Program?

Cases diagnosed as of January 1973 forward are included in the SEER Program. For exceptions, see list of SEER Participants with "Year Reporting to SEER Started" in Section I.01.

Does Residency of Patient Affect Reportability to SEER?

All cancers diagnosed in persons who are residents of the SEER reporting area at time of diagnosis are reportable to SEER.

What is the Policy When There is More Than One Cancer?

The determination of how many primary cancers a patient has is, of course, a medical decision, but operational rules are needed in order to ensure consistency of reporting by all participants. Basic factors include the site of origin, the date of diagnosis, the histologic type, the behavior of the neoplasm (i.e., in situ versus malignant), and laterality.

In general, if there is a difference in the site where the cancer originates, it is fairly easy to determine whether it is a separate primary, regardless of dates of detection and differences in histology.

Likewise, if there is a clear-cut difference in histology, other data such as site and time of detection are not essential. In some neoplasms, however, one must be careful since different histologic terms are used, for example, "leukemic phase of" or "converting to," to describe progressive stages or phases of the same disease process. See below through page 37 for additional guidelines on determining single or multiple primaries.

How Are Multiple Primary Cancers Determined?

Definitions:

1. ***Site differences***:
   Main Rule: Each category (first three characters) as delineated in ICD-O-2 is considered to be a separate site. There are two sets of exceptions to this rule:

   EXCEPTION A: Certain specific sites. For the following three-character categories, each subcategory (4 characters) as delineated in ICD-O-2 is considered to be a *separate site*.

   Colon (C18)
   Anus and anal canal (C21)
   Bones, joints, and articular cartilage (C40 - C41)
   Melanoma of skin (C44)
   Peripheral nerves and autonomic nervous system (C47)
   Connective, subcutaneous and other soft tissues (C49)

   Examples Transverse colon (C18.4) and descending colon (C18.6) are considered separate sites.

   Trigone of bladder (C67.0) and lateral wall of bladder (C67.2) are considered subsites of the bladder and would be treated as one site — either overlapping lesion of subsites of the bladder (C67.8) or bladder, NOS (C67.9).

EXCEPTION B: Certain sites that were combined in the first edition of ICD-O. Between the first and second editions of ICD-O, some subcategories having code numbers with the same first three characters in the first edition of ICD-O were split into separate three-character categories in ICD-O-2, and some subcategories having code numbers with different first three characters were grouped under the same first three characters. To avoid artifactual change in numbers of cancers by site over time, the SEER Program groups the subcategories as they were grouped in ICD-O-1. The table on pages 9–10 shows these exceptions.

To use the table, locate the horizontal row containing the ICD-O-2 codes for each of a pair of subsites/subcategories that are being checked. If they are in the SAME horizontal row, consider them to be the SAME site, whether the first three characters are the same or different. If they are in DIFFERENT horizontal rows, consider them to be DIFFERENT sites, whether the first three characters are the same or different. If both are not on the table, refer to the Main Rule and Exception A above.

Note that when determining multiple primaries using the table on pages 9–10, both invasive and in situ cancers are to be considered.

Examples Base of tongue (C01.9) and border of tongue (C02.1) are considered subsites of the tongue and would be treated as one site and coded as C02.8, overlapping lesion of tongue or C02.9, tongue, NOS.

An invasive transitional cell carcinoma of the renal pelvis (C65.9) and an in situ transitional cell carcinoma of the mid-ureter (C66.9) would be considered one site in the urinary system.

.

2. ***Histologic type differences***: Differences in histologic type refer to differences in the *FIRST THREE* digits of the morphology code, except for lymphatic and hematopoietic diseases (for which see pages 14–37).

3. ***Simultaneous/Synchronous***: Diagnosed within two months of each other.

ICD-O-2 CODES TO BE CONSIDERED THE SAME THREE-DIGIT SITE GROUPING WHEN DETERMINING MULTIPLE PRIMARIES
(Table of Sites for Exception B to Main Rule, p. 8)

ICD-O-2 Codes	Site Groupings
C01	Base of tongue
C02	Other and unspecified parts of tongue
C05	Palate
C06	Other and unspecified parts of mouth
C07	Parotid gland
C08	Other and unspecified major salivary glands
C09	Tonsil
C10	Oropharynx
C12	Pyriform sinus
C13	Hypopharynx
C23	Gallbladder
C24	Other and unspecified parts of biliary tract
C30	Nasal cavity and middle ear
C31	Accessory sinuses
C33	Trachea
C34	Bronchus and lung
C37	Thymus
C38.0	Heart
C38.1-.3	Mediastinum
C38.8	Overlapping lesion of heart, mediastinum, and pleura
C38.4	Pleura (visceral, parietal, NOS)
C51	Vulva
C52	Vagina
C57.7	Other specified female genital organs
C57.8-.9	Unspecified female genital organs
C56	Ovary
C57.0	Fallopian tube
C57.1	Broad ligament
C57.2	Round ligament
C57.3	Parametrium
C57.4	Uterine adnexa

ICD-O-2 CODES TO BE CONSIDERED THE SAME THREE-DIGIT SITE GROUPING WHEN DETERMINING MULTIPLE PRIMARIES (Cont.)
(Table of Sites for Exception B to Main Rule, p. 8)

ICD-O-2 Codes	Site Groupings
C60	Penis
C63	Other and unspecified male genital organs
C64	Kidney
C65	Renal pelvis
C66	Ureter
C68	Other and unspecified urinary organs
C74	Adrenal gland
C75	Other endocrine glands and related structures

Rules for Determining Multiple Primary Cancers (for lymphatic and hematopoietic diseases, see pages 14-37):

1. **A single lesion of one histologic type is considered a single primary, even if the lesion crosses site boundaries.**

   Examples A single lesion involving the tongue and floor of mouth would be one primary.

   A single, large mucinous adenocarcinoma involving the sigmoid and descending colon segments is considered one primary.

2. **A single lesion composed of multiple histologic types is to be considered as a single primary.** The most frequent combinations of histologic types are listed in ICD-O-2. For example, combination terms such as "adenosquamous carcinoma (8560/3)" or "small cell-large cell carcinoma (8045/3)" are included. Any single lesion containing mixed histologies is to be considered one primary.

   Examples A single lesion containing both embryonal cell carcinoma and teratoma is one primary and would be coded to 9081/3, mixed embryonal carcinoma and teratoma.

   A single lesion of the liver composed of neuroendocrine carcinoma (8246/3) and hepatocellular carcinoma (8170/3) is one primary and would be coded to the higher ICD-O-2 code.

3. **If a new cancer of the same histology as an earlier one is diagnosed in the same site within two months, consider this to be the same primary cancer.** If a new cancer of the same histology is diagnosed in the same site after two months, consider this new cancer a separate primary unless stated to be recurrent or metastatic.

   Examples Infiltrating duct carcinoma of the UOQ right breast diagnosed March 1998 and treated with lumpectomy. Previously unidentified mass in LIQ right breast noted in July 1998 mammogram. This was removed and found to be infiltrating duct carcinoma. *Count and abstract as two primaries.*

   Adenocarcinoma in adenomatous polyp in sigmoid colon removed by polypectomy in December 1998. At segmental resection in January 1999, an adenocarcinoma in a tubular adenoma adjacent to the previous polypectomy site was removed. *Count as one primary.*

EXCEPTION 1: Invasive adenocarcinomas of the prostate, site code C61.9, and invasive bladder cancers, site codes C67.0 - C67.9, with histology codes 8120-8130, are the exceptions to the above rule. For these cancers, a single abstract is required for the first invasive lesion only. If there is an in situ cancer followed by an invasive cancer, refer to Exception 2.

EXCEPTION 2: Effective with cases diagnosed January 1995 and after, if an in situ tumor is followed by an invasive cancer in the same site more than two months apart, report as two primaries even if stated to be a recurrence. The invasive primary should be reported with the date of the *invasive* diagnosis. (Note: The purpose of this guideline is to ensure that the case is counted as an incident case (i.e., invasive) when incidence data are analyzed.)

EXCEPTION 3: Kaposi's sarcoma (9140/3) is reported only once and is coded to the site in which it arises. If Kaposi's sarcoma arises in skin and another site simultaneously, code to skin (C44._). If no primary site is stated, code to skin (C44.9).

4. Multiple lesions of the same histologic type

a. Simultaneous multiple lesions of the same histologic type within the same site (i.e., multi*focal* tumors) will be considered a single primary. Further, if one lesion has a behavior code of in situ and another a behavior code of malignant, still consider this to be a single primary whose behavior is malignant.

Examples At nephrectomy, two separate, distinct foci of renal cell carcinoma are found in the specimen in addition to the 3.5 cm primary renal cell carcinoma. *Count as one primary.*

At mastectomy for removal of a 2 cm invasive ductal carcinoma, an additional 5 cm area of intraductal carcinoma was noted. *Count as one invasive primary*.

b. **Multiple lesions of the same histologic type occurring in different sites are considered to be separate primaries unless stated to be metastatic.**

Examples During the workup for a squamous cell carcinoma of the vocal cord, a second squamous cell carcinoma is discovered in the tonsillar fossa. *Count as two primaries.*

A patient with adenocarcinoma of the prostate undergoes a fine needle aspiration biopsy of a lung mass which is also adenocarcinoma. Special pathology stains indicate that the mass in the lung is a metastasis from the prostate. *Code as one primary of the prostate.*

5. Multiple lesions of different histologic types

a. Multiple lesions of different histologic types within a single site are to be considered separate primaries whether occurring simultaneously or at different times.

Examples A patient undergoes a right pneumonectomy for squamous cell carcinoma of the upper lobe. In the pathology specimen, an adenocarcinoma of the middle lobe is identified. *Count as two primaries.*

A patient undergoes a partial gastrectomy for adenocarcinoma of the body of the stomach. In the resected specimen, the pathologist finds both adenocarcinoma and nodular non-Hodgkin's lymphoma. *Count as two primaries.*

EXCEPTION 1: For multiple lesions within a single site occurring within two months, if one lesion is stated to be carcinoma, NOS, adenocarcinoma, NOS, sarcoma, NOS, or melanoma, NOS and the second lesion is a more specific term, such as large cell carcinoma, mucinous adenocarcinoma, spindle cell sarcoma, or superficial spreading melanoma, consider this to be a single primary and code to the more specific term.

Exceptions for colon and rectum tumors:

i When an adenocarcinoma (8140/_; in situ or invasive) arises in the same segment of the colon or rectum as an adenocarcinoma in a polyp (8210/_, 8261/_, 8263/_), code as adenocarcinoma (8140/_).

ii. When a carcinoma (8010/_; in situ or invasive) arises in the same segment of the colon or rectum as a carcinoma in a polyp (8210), code as carcinoma (8010/_).

EXCEPTION 2: Within each breast, combinations of ductal and lobular carcinoma occurring within two months of each other are to be considered a single primary and the histology coded according to ICD-O-2. These histologic combinations are ICD-O-2 morphology codes 8522/2 and 8522/3.

Example A left mastectomy specimen yields lobular carcinoma in the upper inner quadrant and intraductal carcinoma in the lower inner quadrant. *Code as one primary, C50.9 with morphology 8522/3.*

EXCEPTION 3: Certain neoplasms may demonstrate both multiple foci of tumor and multiple histologic types that are commonly found together. In such cases, consult ICD-O-2 for a list of the most frequent histologic combinations. These multifocal, multi-histologic tumors occur most frequently in the thyroid, bladder, and breast. They are to be considered a single primary with a mixed histology.

Example A thyroid specimen contains two separate carcinomas—one papillary and the other follicular. *Code as one primary with morphology 8340/3, papillary and follicular.*

b. Multiple lesions of different histologic types occurring in different sites are considered separate primaries whether occurring simultaneously or at different times.

Examples In 1995, the patient had a mucin-producing carcinoma of the transverse colon. In 1998, the patient was diagnosed with an astrocytoma of the frontal lobe of the brain. *Count as separate primaries.*

During the workup for a transitional cell carcinoma of the bladder, the patient has a TURP which shows adenocarcinoma of the prostate. *Count as separate primaries.*

6. Paired sites

a. If only **one histologic type is reported and if both sides of a paired site are involved** within two months of diagnosis, a determination must be made as to whether the patient has one or two independent primaries. The following scenarios apply:

i. If it is determined that there are two independent primaries, two records are to be submitted, each with the appropriate laterality and extent of disease information.
ii. If it is determined that there is only one primary, laterality should be coded according to the side in which the single primary originated and a single record submitted.
iii. If it is impossible to tell in which of the pair the single primary originated, laterality should be coded as a '4' and a single record submitted.

6.a Paired sites, continued

EXCEPTION 1: Simultaneous bilateral involvement of the ovaries in which there is only a single histology is to be considered one primary and laterality is to be coded '4.'

EXCEPTION 2: Bilateral retinoblastomas and bilateral Wilms' tumor are always considered single primaries (whether simultaneous or not), and laterality is coded as '4.'

b. If **one histologic type is reported in one side of a paired organ and a different histologic type is reported in the other paired organ**, consider these two primaries unless there is a statement to the contrary.

Example If a ductal lesion occurs in one breast and a lobular lesion occurs in the opposite breast, these are considered to be two primaries.

Rules for Determining Multiple Primaries for Lymphatic and Hematopoietic Diseases

The table on pages 15-37 is to be used to help determine multiple primaries of the lymphatic and hematopoietic diseases. Because of the rarity of subacute leukemias and aleukemias, they have been excluded from this table. Similarly, malignant myeloproliferative diseases, except Waldenstrom's macroglobulinemia and immunoproliferative diseases, NOS, are not included.

To use this table, locate the first diagnosis in the left column of the table, then locate the second diagnosis in the other columns. If the second primary appears in the middle column, the two diagnoses are usually considered two separate primaries. If the second diagnosis appears in the right-hand column, then the two diagnoses are usually considered one primary. Select the disease mentioned in the first column unless there is an indication in the right-hand column to do otherwise. If the pathology report specifically states differently, use the pathology report. Consult your medical advisor or pathologist if questions remain.

Example 1
a. first diagnosis: small cleaved cell, diffuse lymphoma (9672)
b. second diagnosis: Hodgkin's disease, mixed cellularity (9652)
This case would be considered two primaries.

Example 2
a. first diagnosis: small cleaved cell, diffuse lymphoma (9672)
b. second diagnosis: acute lymphocytic leukemia (9821 or 9828)
This case would be considered one primary.

RULES:

1. The topography (site) is to be disregarded in determining multiple primaries of lymphatic and hematopoietic diseases.

2. The interval between diagnoses is NOT to enter into the decision.

Example A lymphocytic lymphoma (M-9670/3) diagnosed in March 1987 and an unspecified non-Hodgkin's lymphoma (M-9591/3) diagnosed in April 1988 would be considered one primary, a lymphocytic lymphoma diagnosed in March 1987 (the earlier diagnosis).

DETERMINATION OF SUBSEQUENT PRIMARIES OF LYMPHATIC (NODAL AND EXTRANODAL) AND HEMATOPOIETIC DISEASES

First Primary	Presumably a Second or Subsequent Primary	Presumably NOT a Subsequent Primary (only One Primary)
Hodgkin's disease (9650-9667)	Non-Hodgkin's lymphoma (9591-9595, 9670-9686, 9688, 9690-9698, 9702-9717) Burkitt's lymphoma (9687) Mycosis fungoides or Sezary's disease (9700-9701) Malignant histiocytosis or Letterer-Siwe's disease (9720, 9722) True histiocytic lymphoma (9723) Plasmacytoma or multiple myeloma (9731, 9732) Mast cell tumor (9740-9741) Immunoproliferative disease, NOS (9760) Waldenstrom's macroglobulinemia (9761) Any leukemia (9800-9941)	Hodgkin's disease[1] (9650-9667) Malignant lymphoma, NOS (9590)

[1] Code to the term with the higher histology code.

DETERMINATION OF SUBSEQUENT PRIMARIES OF LYMPHATIC (NODAL AND EXTRANODAL) AND HEMATOPOIETIC DISEASES

First Primary	Presumably a Second or Subsequent Primary	Presumably NOT a Subsequent Primary (only One Primary)
Malignant lymphoma, NOS[1] (9590)	Burkitt's lymphoma (9687) Mycosis fungoides or Sezary's disease (9700, 9701) Malignant histiocytosis or Letterer-Siwe's disease (9720, 9722) Mast cell tumor (9740, 9741) Acute leukemia, NOS (9801) Non-lymphocytic leukemias (9840-9842, 9860-9910) Myeloid sarcoma (9930) Acute panmyelosis (9931) Acute myelofibrosis (9932) Hairy cell leukemia (9940) Leukemic reticuloendotheliosis (9941)	Non-Hodgkin's lymphoma[2] (9590-9595, 9670-9686, 9688, 9690-9698, 9702-9717) Hodgkin's disease[2] (9650-9667) True histiocytic lymphoma (9723) Plasmacytoma[2] or multiple myeloma (9731, 9732) Leukemia, NOS (9800) Chronic leukemia, NOS (9803) Lymphoid or lymphocytic leukemia (9820-9828) Plasma cell leukemia (9830) Lymphosarcoma cell leukemia (9850) Immunoproliferative disease, NOS (9760) Waldenstrom's macroglobulinemia (9761)

[1] If the diagnosis includes "can't rule out leukemia" or "consistent with chronic lymphocytic leukemia" and a bone marrow or peripheral blood study within two months confirms the chronic lymphocytic leukemia diagnosis, then code only to chronic lymphocytic leukemia (9823/3). If not confirmed as chronic lymphocytic leukemia, then code as the lymphoma.

[2] Presumably this is the correct diagnosis. Code the case to this histology.

DETERMINATION OF SUBSEQUENT PRIMARIES OF LYMPHATIC (NODAL AND EXTRANODAL) AND HEMATOPOIETIC DISEASES

First Primary	Presumably a Second or Subsequent Primary	Presumably NOT a Subsequent Primary (only One Primary)
Non-Hodgkin's lymphoma[1] (9591-9595, 9670-9686, 9688, 9690-9698, 9711-9717)	Hodgkin's disease (9650-9667) Burkitt's lymphoma (9687) Mycosis fungoides or Sezary's disease (9700, 9701) Malignant histiocytosis or Letterer-Siwe's disease (9720, 9722) Mast cell tumor (9740-9741) Acute leukemia, NOS (9801) Non-lymphocytic leukemias (9840-9842, 9860-9910) Myeloid sarcoma (9930) Acute panmyelosis (9931) Acute myelofibrosis (9932) Hairy cell leukemia (9940) Leukemic reticuloendotheliosis (9941)	Non-Hodgkin's lymphoma[2] (9590-9595, 9670-9686, 9688, 9690-9698, 9702-9717) Plasmacytoma[3] or multiple myeloma (9731, 9732) True histiocytic lymphoma (9723) Leukemia, NOS (9800) Chronic leukemia, NOS (9803) Lymphoid or lymphocytic leukemia (9820-9828) Plasma cell leukemia (9830) Lymphosarcoma cell leukemia (9850) Waldenstrom's macroglobulinemia (9761) Immunoproliferative disease NOS (9760)

[1] If the diagnosis includes "can't rule out leukemia" or "consistent with chronic lymphocytic leukemia" and a bone marrow or peripheral blood study within two months confirms the chronic lymphocytic leukemia diagnosis, then code only to chronic lymphocytic leukemia (9823/3). If not confirmed as chronic lymphocytic leukemia, then code as the lymphoma.

[2] Code to the term with the higher histology code.

[3] Presumably this is the correct diagnosis. Code the case to this histology.

DETERMINATION OF SUBSEQUENT PRIMARIES OF LYMPHATIC (NODAL AND EXTRANODAL) AND HEMATOPOIETIC DISEASES

First Primary	Presumably a Second or Subsequent Primary	Presumably NOT a Subsequent Primary (only One Primary)
Burkitt's lymphoma (9687)	Specific non-Hodgkin's lymphoma (9593-9594, 9670-9686, 9688, 9690-9698, 9702-9717) Hodgkin's disease (9650-9667) Mycosis fungoides or Sezary's disease (9700, 9701) Malignant histiocytosis or Letterer-Siwe's disease (9720, 9722) Plasmacytoma or multiple myeloma (9731, 9732) True histiocytic lymphoma (9723) Mast cell tumor (9740, 9741) Immunoproliferative disease, NOS (9760) Waldenstrom's macroglobulinemia (9761) Leukemia, NOS (9800) Acute leukemia, NOS (9801) Chronic leukemia, NOS (9803) Chronic lymphocytic leukemia (9823) Non-lymphocytic leukemias (9840-9842, 9860-9910)	Malignant lymphoma, NOS (9590-9591, 9595) Lymphosarcoma (9592) Burkitt's lymphoma (9687) Burkitt's leukemia (9826) Lymphoid or lymphocytic leukemia (9820-9822, 9824-9825, 9827-9828)

(table continued)

DETERMINATION OF SUBSEQUENT PRIMARIES OF LYMPHATIC (NODAL AND EXTRANODAL) AND HEMATOPOIETIC DISEASES

First Primary	Presumably a Second or Subsequent Primary	Presumably NOT a Subsequent Primary (only One Primary)
Burkitt's lymphoma (9687) (cont.)	Plasma cell leukemia (9830) Lymphosarcoma cell leukemia (9850) Myeloid sarcoma (9930) Acute panmyelosis (9931) Acute myelofibrosis (9932) Hairy cell leukemia (9940) Leukemic reticuloendotheliosis (9941)	

DETERMINATION OF SUBSEQUENT PRIMARIES OF LYMPHATIC (NODAL AND EXTRANODAL) AND HEMATOPOIETIC DISEASES

First Primary	Presumably a Second or Subsequent Primary	Presumably NOT a Subsequent Primary (only One Primary)
Cutaneous and peripheral T-cell lymphomas (9700-9709)	Specific non-Hodgkin's lymphoma (9593-9594, 9670-9688, 9690-9698, 9711-9717) Hodgkin's disease (9650-9667) Malignant histiocytosis or Letterer-Siwe's disease (9720, 9722) True histiocytic lymphoma (9723) Plasmacytoma or multiple myeloma (9731, 9732) Mast cell tumor (9740, 9741) Immunoproliferative disease, NOS (9760) Waldenstrom's macroglobulinemia (9761) Lymphoid or lymphocytic leukemia specified as B-cell (9820-9827) Plasma cell leukemia (9830) Non-lymphocytic leukemia (9840-9842, 9860-9910) Lymphosarcoma cell leukemia (9850) Myeloid sarcoma (9930) Acute panmyelosis (9931)	Malignant lymphoma, NOS (9590-9591, 9595) Lymphosarcoma (9592) Cutaneous and peripheral T-cell lymphomas (9700-9709) Leukemia, NOS (9800) Acute leukemia, NOS (9801) Chronic leukemia, NOS (9803) Lymphoid or lymphocytic leukemia unless specifically identified as B-cell (9820-9828)

(table continued)

DETERMINATION OF SUBSEQUENT PRIMARIES OF LYMPHATIC (NODAL AND EXTRANODAL) AND HEMATOPOIETIC DISEASES

First Primary	Presumably a Second or Subsequent Primary	Presumably NOT a Subsequent Primary (only One Primary)
Cutaneous and peripheral T-cell lymphomas (9700-9709) (cont.)	Acute myelofibrosis (9932) Hairy cell leukemia (9940) Leukemic reticuloendotheliosis (9941)	

DETERMINATION OF SUBSEQUENT PRIMARIES OF LYMPHATIC (NODAL AND EXTRANODAL) AND HEMATOPOIETIC DISEASES

First Primary	Presumably a Second or Subsequent Primary	Presumably NOT a Subsequent Primary (only One Primary)
Malignant histiocytosis or Letterer-Siwe's disease (9720, 9722, 9723)	Specific non-Hodgkin's lymphoma (9592-9594, 9670-9686, 9688, 9690-9698, 9702-9717) Hodgkin's disease (9650-9667) Burkitt's lymphoma (9687) Mycosis fungoides or Sezary's disease (9700, 9701) Plasmacytoma or multiple myeloma (9731, 9732) Mast cell tumor (9740, 9741) Immunoproliferative disease, NOS (9760) Waldenstrom's macroglobulinemia (9761) Leukemia except hairy cell and leukemic reticuloendotheliosis (9800-9932)	Non-Hodgkin's lymphoma, NOS (9590-9591, 9595) Malignant histiocytosis or Letterer-Siwe's disease (9720, 9722, 9723) Hairy cell leukemia (9940) Leukemic reticuloendotheliosis (9941)

DETERMINATION OF SUBSEQUENT PRIMARIES OF LYMPHATIC (NODAL AND EXTRANODAL) AND HEMATOPOIETIC DISEASES

First Primary	Presumably a Second or Subsequent Primary	Presumably NOT a Subsequent Primary (only One Primary)
Plasmacytoma or multiple myeloma (9731, 9732)	Non-Hodgkin's lymphoma except immunoblastic or large-cell lymphoma (9592-9594, 9670, 9672-9677, 9683, 9685-9686, 9688, 9690-9697, 9702-9713, 9715-9717) Hodgkin's disease (9650-9667) Burkitt's lymphoma (9687) Mycosis fungoides or Sezary's disease (9700, 9701) Malignant histiocytosis or Letterer-Siwe's disease (9720, 9722) True histiocytic lymphoma (9723) Mast cell tumor (9740, 9741) Immunoproliferative disease NOS (9760) Leukemia except plasma cell (9800-9828, 9840-9941)	Malignant lymphoma, NOS (9590, 9591, 9595) Immunoblastic or large cell lymphoma[1] (9671, 9680-9682, 9684, 9698, 9714) Plasmacytoma or multiple myeloma (9731, 9732) Waldenstrom's macroglobulinemia (9761) Plasma cell leukemia (9830)

[1] Occasionally multiple myeloma develops an immunoblastic or large cell lymphoma phase. This is to be considered one primary, multiple myeloma. Consult your medical advisor or pathologist if questions remain.

DETERMINATION OF SUBSEQUENT PRIMARIES OF LYMPHATIC (NODAL AND EXTRANODAL) AND HEMATOPOIETIC DISEASES

First Primary	Presumably a Second or Subsequent Primary	Presumably NOT a Subsequent Primary (only One Primary)
Mast cell tumor (9740, 9741)	Non-Hodgkin's lymphoma (9590-9595, 9670-9688, 9690-9698, 9702-9717) Hodgkin's disease (9650-9667) Mycosis fungoides or Sezary's disease (9700, 9701) Malignant histiocytosis or Letterer-Siwe's disease (9720, 9722) True histiocytic lymphoma (9723) Plasmacytoma or multiple myeloma (9731, 9732) Immunoproliferative disease, NOS (9760) Waldenstrom's macroglobulinemia (9761) Lymphoid or lymphocytic leukemia (9820-9828) Chronic lymphocytic leukemia (9823) Plasma cell leukemia (9830) Non-lymphocytic leukemias (9840-9842, 9860-9880, 9910) Lymphosarcoma cell leukemia (9850)	Mast cell tumor (9740, 9741) Leukemia, NOS (9800) Acute leukemia, NOS (9801) Chronic leukemia, NOS (9803) Monocytic leukemia (9890-9894) Mast cell leukemia (9900)

(table continued)

DETERMINATION OF SUBSEQUENT PRIMARIES OF LYMPHATIC (NODAL AND EXTRANODAL) AND HEMATOPOIETIC DISEASES

First Primary	Presumably a Second or Subsequent Primary	Presumably NOT a Subsequent Primary (only One Primary)
Mast cell tumor (9740, 9741) (cont.)	Myeloid sarcoma (9930) Acute panmyelosis (9931) Acute myelofibrosis (9932) Hairy cell leukemia (9940) Leukemic reticuloendotheliosis (9941)	

DETERMINATION OF SUBSEQUENT PRIMARIES OF LYMPHATIC (NODAL AND EXTRANODAL) AND HEMATOPOIETIC DISEASES

First Primary	Presumably a Second or Subsequent Primary	Presumably NOT a Subsequent Primary (only One Primary)
Immunoproliferative disease, NOS (9760) Waldenstrom's macroglobulinemia (9761)	Non-Hodgkin's lymphoma except immunoblastic or large cell lymphoma (9593-9594, 9673-9677, 9683, 9685-9686, 9688, 9690-9697, 9702-9713, 9715-9717 Hodgkin's disease (9650-9667) Burkitt's lymphoma (9687) Mycosis fungoides or Sezary's disease (9700, 9701) Malignant histiocytosis or Letterer-Siwe's disease (9720, 9722) True histiocytic lymphoma (9723) Mast cell tumor (9740, 9741) Leukemia except plasma cell (9800-9828, 9840-9941)	Malignant lymphoma, NOS (9590, 9591, 9595) Lymphosarcoma (9592) Immunoblastic or large cell lymphoma (9671, 9680-9682, 9684, 9698, 9714) Malignant lymphoma, lymphocytic (9670, 9672) Plasmacytoma or multiple myeloma (9731, 9732) Immunoproliferative disease, NOS (9760) Waldenstrom's macroglobulinemia (9761) Plasma cell leukemia (9830)

DETERMINATION OF SUBSEQUENT PRIMARIES OF LYMPHATIC (NODAL AND EXTRANODAL) AND HEMATOPOIETIC DISEASES

First Primary	Presumably a Second or Subsequent Primary	Presumably NOT a Subsequent Primary (only One Primary)
Leukemia, NOS (9800)	Non-Hodgkin's lymphoma[1] (9590-9595, 9670-9688, 9690-9698, 9702-9717) Hodgkin's disease (9650-9667) Mycosis fungoides (9700) Malignant histiocytosis or Letterer-Siwe's disease (9720, 9722) True histiocytic lymphoma (9723) Plasmacytoma or multiple myeloma (9731, 9732) Mast cell tumor (9740, 9741) Immunoproliferative disease, NOS (9760) Waldenstrom's macroglobulinemia (9761)	Any leukemia[2] (9800-9941) Sezary's disease[3] (9701)

[1] If the diagnosis includes "can't rule out leukemia" or "consistent with chronic lymphocytic leukemia" and a bone marrow or peripheral blood study within two months confirms the chronic lymphocytic leukemia diagnosis, then code only to chronic lymphocytic leukemia (9823/3). If not confirmed as chronic lymphocytic leukemia, then code as the lymphoma.

[2] Note: Leukemia, NOS (9800) should be upgraded to a more specific leukemia diagnosis (higher number) when it is found but not considered a second primary.

[3] Presumably this is the correct diagnosis. Code the case to this histology.

DETERMINATION OF SUBSEQUENT PRIMARIES OF LYMPHATIC (NODAL AND EXTRANODAL) AND HEMATOPOIETIC DISEASES

First Primary	Presumably a Second or Subsequent Primary	Presumably NOT a Subsequent Primary (only One Primary)
Acute leukemia, NOS (9801)	Non-Hodgkin's lymphoma (9590-9595, 9670-9688, 9690-9698, 9702-9717) Hodgkin's disease (9650-9667) Mycosis fungoides (9700) Malignant histiocytosis Letterer-Siwe's disease (9720, 9722) True histiocytic lymphoma (9723) Plasmacytoma or multiple myeloma (9731, 9732) Mast cell tumor (9740, 9741) Immunoproliferative disease, NOS (9760) Waldenstrom's macroglobulinemia (9761)	Any leukemia[1] (9800-9941) Sezary's disease[2] (9701)

[1] Note: Acute leukemia, NOS (9801) should be upgraded to a more specific type of acute leukemia (higher number) when it is found, but not considered a second primary.

[2] Presumably this is the correct diagnosis. Code the case to this histology.

DETERMINATION OF SUBSEQUENT PRIMARIES OF LYMPHATIC (NODAL AND EXTRANODAL) AND HEMATOPOIETIC DISEASES

First Primary	Presumably a Second or Subsequent Primary	Presumably NOT a Subsequent Primary (only One Primary)
Chronic leukemia, NOS (9803)	Hodgkin's disease (9650-9667) Malignant histiocytosis or Letterer-Siwe's disease (9720, 9722) Mast cell tumor (9740, 9741)	Non-Hodgkin's lymphoma[1] (9590-9595, 9670-9686, 9688, 9690-9698, 9702-9717) Burkitt's lymphoma (9687) Mycosis fungoides or Sezary's disease (9700, 9701) True histiocytic lymphoma (9723) Plasmacytoma or multiple myeloma (9731, 9732) Immunoproliferative disease, NOS (9760) Waldenstrom's macroglobulinemia (9761) Any leukemia[2] (9800-9941)

[1] If the diagnosis includes "can't rule out leukemia" or "consistent with chronic lymphocytic leukemia" and a bone marrow or peripheral blood study within two months confirms the chronic lymphocytic leukemia diagnosis, then code only to chronic lymphocytic leukemia (9823/3). If not confirmed as chronic lymphocytic leukemia, then code as the lymphoma.

[2] Note: Chronic leukemia, NOS (9803) should be upgraded to a more specific type of chronic leukemia (higher number) when it is found, but not considered a second primary.

DETERMINATION OF SUBSEQUENT PRIMARIES OF LYMPHATIC (NODAL AND EXTRANODAL) AND HEMATOPOIETIC DISEASES

First Primary	Presumably a Second or Subsequent Primary	Presumably NOT a Subsequent Primary (only One Primary)
Lymphocytic leukemia (9820-9828)	Hodgkin's disease (9650-9667) Malignant histiocytosis or Letterer-Siwe's disease (9720, 9722) Plasmacytoma or multiple myeloma (9731, 9732) Mast cell tumor (9740, 9741) Immunoproliferative disease, NOS (9760) Waldenstrom's macroglobulinemia (9761) Non-lymphocytic leukemias[1] (9840-9842, 9860-9910) Myeloid sarcoma[1] (9930)	Non-Hodgkin's lymphoma[2] (9592-9595, 9670-9688, 9690-9698, 9702-9717) Malignant lymphoma, NOS[2] (9590-9591) Mycosis fungoides or Sezary's disease[3] (9700, 9701) True histiocytic lymphoma (9723) Leukemia, NOS (9800) Acute leukemia, NOS (9801) Chronic leukemia, NOS (9803) Lymphocytic leukemia[3] (9820-9828)

(table continued)

[1] If any of these diagnoses are made within 4 months of lymphocytic leukemia, NOS (9820) or acute lymphocytic leukemia (9821), one of the two diagnoses probably is wrong. The case should be reviewed.

[2] If the diagnosis includes "can't rule out leukemia" or "consistent with chronic lymphocytic leukemia" and a bone marrow or peripheral blood study within two months confirms the chronic lymphocytic leukemia diagnosis, then code only to chronic lymphocytic leukemia (9823). If not confirmed as chronic lymphocytic leukemia, then code as the lymphoma.

[3] Note: Lymphocytic leukemia, NOS (9820) should be upgraded to a more specific diagnosis that is not considered a second primary.

DETERMINATION OF SUBSEQUENT PRIMARIES OF LYMPHATIC (NODAL AND EXTRANODAL) AND HEMATOPOIETIC DISEASES

First Primary	Presumably a Second or Subsequent Primary	Presumably NOT a Subsequent Primary (only One Primary)
Lymphocytic leukemia (9820-9828) (cont.)	Acute panmyelosis[2] (9931) Acute myelofibrosis[2] (9932)	Plasma cell leukemia[1] (9830) Lymphosarcoma cell leukemia[1] (9850) Hairy cell leukemia[1] (9940) Leukemic reticuloendotheliosis[1] (9941)

[1] Note: Lymphocytic leukemia, NOS (9820) should be upgraded to a more specific diagnosis that is not considered a second primary.

[2] If any of these diagnoses are made within 4 months of lymphocytic leukemia, NOS (9820) or acute lymphocytic leukemia (9821), one of the two diagnoses probably is wrong. The case should be reviewed.

DETERMINATION OF SUBSEQUENT PRIMARIES OF LYMPHATIC (NODAL AND EXTRANODAL) AND HEMATOPOIETIC DISEASES

First Primary	Presumably a Second or Subsequent Primary	Presumably NOT a Subsequent Primary (only One Primary)
Plasma cell leukemia (9830)	Non-Hodgkin's lymphoma (9590-9595, 9670-9686, 9688, 9690-9698, 9702-9717) Hodgkin's disease (9650-9667) Burkitt's lymphoma (9687) Mycosis fungoides or Sezary's disease (9700, 9701) Malignant histiocytosis or Letterer-Siwe's disease (9720, 9722) True histiocytic lymphoma (9723) Mast cell tumor (9740, 9741) Non-lymphocytic leukemia (9840-9842, 9860-9910) Myeloid sarcoma (9930) Acute panmyelosis (9931) Acute myelofibrosis (9932)	Plasmacytoma or multiple myeloma (9731, 9732) Immunoproliferative disease, NOS (9760) Waldenstrom's macroglobulinemia (9761) Leukemia, NOS (9800) Acute leukemia, NOS (9801) Chronic leukemia, NOS (9803) Lymphocytic leukemia (9820-9828) Plasma cell leukemia (9830) Lymphosarcoma cell leukemia (9850) Hairy cell leukemia (9940) Leukemic reticuloendotheliosis (9941)

DETERMINATION OF SUBSEQUENT PRIMARIES OF LYMPHATIC (NODAL AND EXTRANODAL) AND HEMATOPOIETIC DISEASES

First Primary	Presumably a Second or Subsequent Primary	Presumably NOT a Subsequent Primary (only One Primary)
Lymphosarcoma cell leukemia (9850)	Hodgkin's disease (9650-9667) Mycosis fungoides or Sezary's disease (9700, 9701) Malignant histiocytosis or Letterer-Siwe's disease (9720, 9722) Mast cell tumor (9740, 9741) Non-lymphocytic leukemia (9840-9842, 9860-9941)	Non-Hodgkin's lymphoma (9590-9595, 9670-9688, 9690-9698, 9702-9717) True histiocytic lymphoma (9723) Plasmacytoma or multiple myeloma (9731-9732) Immunoproliferative disease, NOS (9760) Waldenstrom's macroglobulinemia (9761) Leukemia, NOS (9800) Acute leukemia, NOS (9801) Chronic leukemia, NOS (9803) Lymphocytic leukemia (9820-9828) Plasma cell leukemia (9830) Lymphosarcoma cell leukemia (9850)

DETERMINATION OF SUBSEQUENT PRIMARIES OF LYMPHATIC (NODAL AND EXTRANODAL) AND HEMATOPOIETIC DISEASES

First Primary	Presumably a Second or Subsequent Primary	Presumably NOT a Subsequent Primary (only One Primary)
Non-lymphocytic leukemias (9840-9842, 9860-9894, 9910-9932)	Non-Hodgkin's lymphoma (9590-9595, 9670-9686, 9688, 9690-9698, 9702-9717) Hodgkin's disease (9650-9667) Burkitt's lymphoma (9687) Mycosis fungoides or Sezary's disease (9700, 9701) Malignant histiocytosis or Letterer-Siwe's disease (9720, 9722) True histiocytic lymphoma (9723) Plasmacytoma or multiple myeloma (9731, 9732) Mast cell tumor (9740, 9741) Immunoproliferative disease, NOS (9760) Waldenstrom's macroglobulinemia (9761) Lymphocytic leukemia (9820-9828) Plasma cell leukemia (9830)	Leukemia, NOS (9800) Acute leukemia, NOS (9801) Chronic leukemia, NOS (9803) Non-lymphocytic leukemias[1] (9840-9842, 9860-9894, 9910-9932)

(table continued)

[1]Code to the term with the higher histology code.

DETERMINATION OF SUBSEQUENT PRIMARIES OF LYMPHATIC (NODAL AND EXTRANODAL) AND HEMATOPOIETIC DISEASES

First Primary	Presumably a Second or Subsequent Primary	Presumably NOT a Subsequent Primary (only One Primary)
Non-lymphocytic leukemias (9840-9842, 9860-9894, 9910-9932) (cont.)	Lymphosarcoma cell leukemia (9850) Mast cell leukemia (9900) Hairy cell leukemia (9940) Leukemic reticuloendotheliosis (9941)	

DETERMINATION OF SUBSEQUENT PRIMARIES OF LYMPHATIC (NODAL AND EXTRANODAL) AND HEMATOPOIETIC DISEASES

First Primary	Presumably a Second or Subsequent Primary	Presumably NOT a Subsequent Primary (only One Primary)
Mast cell leukemia (9900)	Non-Hodgkin's lymphoma (9590-9595, 9670-9686, 9688, 9690-9698, 9702-9717) Hodgkin's disease (9650-9667) Burkitt's lymphoma (9687) Mycosis fungoides or Sezary's disease (9700, 9701) Malignant histiocytosis or Letterer-Siwe's disease (9720, 9722) True histiocytic lymphoma (9723) Plasmacytoma or multiple myeloma (9731, 9732) Immunoproliferative disease, NOS (9760) Waldenstrom's macroglobulinemia (9761) Any other leukemia (9820-9894, 9910-9941)	Mast cell tumor (9740, 9741) Leukemia, NOS (9800) Acute leukemia, NOS (9801) Chronic leukemia, NOS (9803) Mast cell leukemia (9900)

DETERMINATION OF SUBSEQUENT PRIMARIES OF LYMPHATIC (NODAL AND EXTRANODAL) AND HEMATOPOIETIC DISEASES

First Primary	Presumably a Second or Subsequent Primary	Presumably NOT a Subsequent Primary (only One Primary)
Hairy cell leukemia or leukemic reticuloendotheliosis (9940, 9941)	Non-Hodgkin's lymphoma (9590-9595, 9670-9686, 9688, 9690-9698, 9702-9717) Hodgkin's disease (9650-9667) Burkitt's lymphoma (9687) Mycosis fungoides or Sezary's disease (9700, 9701) True histiocytic lymphoma (9723) Plasmacytoma or multiple myeloma (9731, 9732) Mast cell tumor (9740, 9741) Immunoproliferative disease, NOS (9760) Waldenstrom's macroglobulinemia (9761) Any non-lymphocytic leukemia (9800-9804, 9830-9932) Lymphocytic leukemia (9821-9828)	Malignant histiocytosis or Letterer-Siwe's (9720, 9722) Lymphocytic leukemia, NOS (9820) Hairy cell leukemia or leukemic reticuloendotheliosis (9940, 9941)

Full explanation of SEER codes and coding instructions over time requires reference to the following additional manuals.

Extent of Disease Codes

1. *SEER Extent of Disease--1988: Codes and Coding Instructions*, Third Edition (SEER Program, January 1998)
   Ten-digit codes used for cases diagnosed 1988 and later.

2. *SEER Extent of Disease--1988: Codes and Coding Instructions*, Second Edition (SEER Program, June 1992)
   Ten-digit codes used for cases diagnosed 1988 and later.

3. *Extent of Disease: New 4-Digit Schemes: Codes and Coding Instructions* (SEER Program, revised June 1991)
   Four-digit codes used for cases diagnosed 1983-1987. Revised March 1984 and revised to accommodate *International Classification of Diseases for Oncology*, 2nd ed., June 1991.

4. *Extent of Disease: Codes and Coding Instructions* (SEER Program, April 1977)
   Thirteen- and two-digit codes used for coding cases diagnosed 1973-1982.

Primary Site and Histologic Type Codes

1. *International Classification of Diseases for Oncology*, 2nd ed. (World Health Organization, 1990)
   Referred to as ICD-O-2. Used for cases diagnosed 1992 and later. Codes for cases diagnosed before 1992 were converted to ICD-O-2 codes.

2. *International Classification of Diseases for Oncology*, Field Trial Edition (International Agency for Research on Cancer, March 1988)
   Referred to as ICD-O-Field Trial. There were two previous Field Trial Editions, dated 1986 and August 1987.

3. *International Classification of Diseases for Oncology*, 1st ed. (World Health Organization, 1976)
   Referred to as ICD-O or ICD-O-1. Used from the beginning of the SEER Program until the Field Trial Editions were introduced.

Mortality (Cause of Death) Codes

1. *ICD-10: International Statistical Classification of Diseases and Related Health Problems*, 10th rev., 3 vol. (World Health Organization, 1992)
   ICD-10 will be used by vital statistics offices for coding cause of death in the United States in 1999.

2. *Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death*, Based on the Recommendations of the Ninth Revision Conference, 1975 . . . , 2 vol. (World Health Organization, 1977)
   Known as ICD-9. Used for coding causes of death in the United States from 1979 forward.

3. *Eighth Revision International Classification of Diseases, Adapted for Use in the United States*, 2 vol. (U.S. Department of Health, Education, and Welfare, vol.1 undated, vol. 2 December 1968)
   Referred to as ICD-8-A. Causes of death in SEER data are coded using ICD-8-A through 1978.

Other

1. *Self-Instructional Manual for Tumor Registrars: Book 8 - Antineoplastic Drugs,* Third Edition (U.S. Department of Health and Human Services, December 1993)
   An update to the third edition of Book 8 is scheduled for publication in early 1998.

2. *Abstracting Instructions: Extent of Disease and Diagnostic Procedures* (SEER Program, April 1977)

3. *ICD-9-CM: The International Classification of Diseases, 9th Revision, Clinical Modification*, 4th ed., 3 vol. (U.S. Department of Health and Human Services, October 1991)
   ICD-9-CM is used in hospital medical record rooms for coding diagnoses and procedures.

4. *AJCC Cancer Staging Manual*, Fifth Edition. American Joint Committee on Cancer. Philadelphia: Lippincott-Raven Publishers, 1997.

5. *SEER EDIT Documentation*, May 1997. SEER Program.

6. *Comparative Staging Guide*, third edition (SEER Program, 1998).

7. *Standards of the Commission on Cancer, Volume II: Standards Registry Operations and Data Standards, Appendix D, 1/98 revision*. American College of Surgeons, Chicago, 1998.

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The SEER Code Summary is intended to be a quick reference to the valid codes for each field. See complete description of each field for specific coding rules which begin on the page listed for the field.

Section, Field Number	Section, Field Name Code, Description	Details on Page
I.	**BASIC RECORD IDENTIFICATION**	61
I.01	**SEER Participant**	62

A specific 2-digit identification of each participant in the SEER Program

01	San Francisco-Oakland SMSA
02	Connecticut
20	Metropolitan Detroit
21	Hawaii
22	Iowa
23	New Mexico
25	Seattle-Puget Sound
26	Utah
27	Metropolitan Atlanta
31	San Jose-Monterey
33	Arizona Indians
35	Los Angeles
37	Rural Georgia

I.02 Patient ID Number 63

A unique number assigned to the patient by the SEER participant

Note: All computer records pertaining to the same person must have an identical Patient ID Number and the same SEER Participant Number. The combination of this number plus the SEER Participant Number identifies a unique patient in the SEER database.

I.03 Record Number 64

A unique sequential number assigned by the SEER participant to this record for the patient

Section, Field Number	Section, Field Name Code, Description	Details on Page
III.	**DEMOGRAPHIC INFORMATION** (cont.)	
III.05	**Age at Diagnosis**	78

000	Less than one year old
001	One year old, but less than two years
002	Two years old
...	
...	(Show actual age.)
...	
101	One hundred one years old
...	
...	
120	One hundred twenty years old
999	Unknown Age

III.06 Race 79

01	White
02	Black
03	American Indian, Aleutian, or Eskimo
04	Chinese
05	Japanese
06	Filipino
07	Hawaiian
08	Korean
09	Asian Indian, Pakistani
10	Vietnamese
11	Laotian
12	Hmong
13	Kampuchean
14	Thai (effective with 1994 diagnoses)
20	Micronesian, NOS
21	Chamorran
22	Guamanian, NOS
25	Polynesian, NOS
26	Tahitian
27	Samoan
28	Tongan
30	Melanesian, NOS
31	Fiji Islander
32	New Guinean
96	Other Asian, incl. Asian, NOS and Oriental, NOS
97	Pacific Islander, NOS
98	Other
99	Unknown

Note: Codes 08-13 became effective for diagnoses on or after 1/1/88; codes 20-97 for diagnoses on or after 1/1/91; code 14 for diagnoses on or after 1/1/94. See also page 79.

Section, Field Number	Section, Field Name Code, Description		Details on Page
III.	**DEMOGRAPHIC INFORMATION** (cont.)		
III.07	**Spanish Surname or Origin**		81
	0	Non-Spanish/Non-Hispanic	
	1	Mexican	
	2	Puerto Rican	
	3	Cuban	
	4	South or Central American (except Brazil)	
	5	Other specified Spanish/Hispanic Origin (includes European)	
	6	Spanish, NOS; Hispanic, NOS; Latino, NOS	
	7	Spanish surname only	
	9	Unknown whether Spanish or not	
III.08	**Computer-Derived Name-Based Ethnicity**		82
III.08.A	Computed Ethnicity		82
	0	No match was run, for 1994 and later cases	
	1	Non-Hispanic last name and non-Hispanic maiden name	
	2	Non-Hispanic last name, didn't check maiden name (or male)	
	3	Non-Hispanic last name, missing maiden name	
	4	Hispanic last name, non-Hispanic maiden name	
	5	Hispanic last name, didn't check maiden name (or male)	
	6	Hispanic last name, missing maiden name	
	7	Hispanic maiden name (females only) (regardless of last name)	
	Blank	1993 and earlier cases	
III.08.B	Computed Ethnicity Source		82
	0	No match was run for 1994 and later cases	
	1	Census Bureau list of Spanish surnames, NOS	
	2	1980 Census Bureau list of Spanish surnames	
	3	1990 Census Bureau list of Spanish surnames	
	4	GUESS program	
	5	Combination list including South Florida names	
	6	Combination of Census and other locally generated list	
	7	Combination of Census and GUESS, with or without other lists	
	8	Other type of match	
	9	Unknown type of match	
	Blank	1993 and earlier cases	

Month
01-12 Month
99 Unknown

Year
All four digits of year

00	One primary only
01	First of two or more primaries
02	Second of two or more primaries
..	
..	(Actual number of this primary)
..	
10	Tenth of ten or more primaries
11	Eleventh of eleven or more primaries
..	
..	
25	Twenty-fifth of twenty-five or more primaries
98	Cervix carcinoma in situ after 1/1/96
99	Unspecified sequence number

See the *International Classification of Diseases for Oncology*, Second Edition (ICD-O-2), Topography Section, for primary site codes.

0	Not a paired site
1	Right: origin of primary
2	Left: origin of primary
3	Only one side involved, right or left origin unspecified
4	Bilateral involvement, lateral origin unknown: stated to be single primary Both ovaries involved simultaneously, single histology Bilateral retinoblastomas Bilateral Wilms' tumors
9	Paired site, but no information concerning laterality; midline tumor

Estrogen Receptor Status (ERA) (breast cases only) (codes 0, 1, 2, 3, 8, 9)
Acid Phosphatase (PAP) (prostate cases only) (codes 0, 1, 2, 3, 8, 9)
Alpha Fetoprotein (AFP) (testicular cases only) (codes 0, 2, 4, 5, 6, 8, 9)

0	None done (SX)
1	Positive/elevated
2	Negative/normal; within normal limits (S0)
3	Borderline; undetermined whether positive or negative
4	Range 1
5	Range 2
6	Range 3
8	Ordered, but results not in chart
9	Unknown or no information

Note: for testis the following values apply:
Code ‘4’, Range 1 (S1) < 1,000 ng/ml
Code ‘5’, Range 2 (S2) 1,000 - 10,000 ng/ml
Code ‘6’, Range 3 (S3) > 10,000 ng/ml

For All Other Cases (except breast, prostate, and testis)

9	Not applicable

Section, Field Number	Section, Field Name Code, Description	Details on Page

IV. DESCRIPTION OF THIS NEOPLASM (cont.)

IV.07.B Tumor Marker 2 108

Progesterone Receptor Status (PRA) (breast cases only) (codes 0, 1, 2, 3, 8, 9)
Prostate Specific Antigen (PSA) (prostate cases only) (codes 0, 1, 2, 3, 8, 9)
Human Chorionic Gonadotropin (hCG) (testicular cases only) (codes 0, 2, 4, 5, 6, 8, 9)

0 None done (SX)
1 Positive/elevated
2 Negative/normal; within normal limits (S0)
3 Borderline; undetermined whether positive or negative
4 Range 1
5 Range 2
6 Range 3
8 Ordered, but results not in chart
9 Unknown or no information

Note: for testis, the following values apply:
Code '4', Range 1 (S1) < 5,000 mIU/ml
Code '5', Range 2 (S2) 5,000 - 50,000 mIU/ml
Code '6', Range 3 (S3) > 50,000 mIU/ml

For All Other Cases (except breast, prostate and testis)

9 Not applicable

IV.07.C Tumor Marker 3 110

Lactate Dehydrogenase(LDH) (testicular cases only)

0 Not done (SX)
1 Positive/elevated
2 Negative/normal; within normal limits (S0)
3 Borderline; undetermined whether positive or negative
4 Range 1
5 Range 2
6 Range 3
8 Ordered, but results not in chart
9 Unknown or no information

Note: for testis, the following values apply:
Code '4', Range 1 (S1) < 1.5 times upper limit of normal for LDH assay
Code '5', Range 2 (S2) 1.5 - 10 times upper limit of normal for LDH assay
Code '6', Range 3 (S3) > 10 times upper limit of normal for LDH assay

For All Other Cases

9 Not applicable

Section, Field Number	Section, Field Name Code, Description	Details on Page

V. FIRST COURSE OF CANCER-DIRECTED THERAPY (cont.)

V.03 Radiation 134

0 None
1 Beam radiation
2 Radioactive implants
3 Radioisotopes
4 Combination of 1 with 2 or 3
5 Radiation, NOS – method or source not specified
7 Patient or patient's guardian refused
8 Radiation recommended, unknown if administered
9 Unknown

V.04 Radiation to the Brain and/or Central Nervous System 135
(not coded for cases diagnosed 1/1/98 and after)
For Lung and Leukemia Cases Only

0 No radiation to the brain and/or central nervous system
1 Radiation
7 Patient or patient's guardian refused
8 Radiation recommended, unknown if administered
9 Unknown

For All Other Cases; for all cases diagnosed 1/1/98 and after

9 Not applicable

V.05 Radiation Sequence with Surgery 136

0 No radiation and/or cancer-directed surgery
2 Radiation before surgery
3 Radiation after surgery
4 Radiation both before and after surgery
5 Intraoperative radiation
6 Intraoperative radiation with other radiation given before or after surgery
9 Sequence unknown, but both surgery and radiation were given

Section, Field Number	Section, Field Name Code, Description	Details on Page
	V. FIRST COURSE OF CANCER-DIRECTED THERAPY (cont.)	
V.06	**Chemotherapy**	137
	0 None 1 Chemotherapy, NOS 2 Chemotherapy, single agent 3 Chemotherapy, multiple agents (combination regimen) 7 Patient or patient's guardian refused 8 Chemotherapy recommended, unknown if administered 9 Unknown	
V.07	**Hormone Therapy**	138
	0 None 1 Hormones (including NOS and antihormones) 2 Endocrine surgery and/or endocrine radiation (if cancer is of another site) 3 Combination of 1 and 2 7 Patient or patient's guardian refused 8 Hormonal therapy recommended, unknown if administered 9 Unknown	
V.08	**Immunotherapy**	139
	0 None 1 Biological response modifier 2 Bone marrow transplant — autologous 3 Bone marrow transplant — allogenic 4 Bone marrow transplant, NOS 5 Stem cell transplant 6 Combination of 1 plus (2, 3, 4, or 5) 7 Patient or patient's guardian refused 8 Biological response modifier recommended, unknown if administered 9 Unknown if immunotherapy given	

Section, Field Number	Section, Field Name Code, Description	Details on Page

VII. ADMINISTRATIVE CODES (cont.)

VII.07 Type of Reporting Source/Sequence Number Interfield Review (Interfield Edit 04) 158

blank Not reviewed
1 Reviewed: A second or subsequent primary with a reporting source of Death Certificate Only has been reviewed and is indeed an independent primary.

VII.08 Sequence Number/Ill-defined Site Interfield Review (Interfield Edit 22) 159

blank Not reviewed
1 Reviewed: A second or subsequent primary reported with an ill-defined primary site (C76.0-C76.8, C80.9) has been reviewed and is indeed an independent primary.

VII.09 Leukemia or Lymphoma/Diagnostic Confirmation Interfield Review (Interfield Edit 48) 160

blank Not reviewed
1 Reviewed: Record(s) have been reviewed for a patient who was diagnosed with leukemia or lymphoma and the diagnosis was not microscopically confirmed.

VII.10 Override Flag for Site/Behavior (IF39) 161

blank Not reviewed
1 Reviewed: Record(s) for a patient who had an in situ cancer of a non-specific site; no further information about the primary site is available.

VII.11 Override Flag for Site/EOD/Diagnosis Date (IF40) 162

blank Not reviewed
1 Reviewed: Record(s) for a patient who had "localized" disease with a non-specific site; no further information about the primary is available.

VII.12 Override Flag for Site/Laterality/EOD (IF41) 163

blank Not reviewed
1 Reviewed: Record(s) for a patient who had laterality coded non-specifically and EOD coded specifically.

Page intentionally blank.

The records submitted by each SEER participant, the record(s) for the same person, and each separate record need to be identified. The Basic Record Identification section includes coded identifiers for the SEER participant, the person, and the record. The use of coded identifiers preserves the confidentiality of the data, yet allows the identification of individual records or a set of records for a person. The same person would have the same SEER Participant Number and Patient ID Number. The Sequence Number or Record Number would identify multiple cancers for the same patient. Together the fields in the Basic Record Identification section provide a unique identifier for each record.

SEER Participant

Code	Participant (Contractor)	Area Covered*, Year Reporting to SEER Started	Name
01	Northern California Cancer Center	5 counties 1973	San Francisco-Oakland SMSA
02	Connecticut State Department of Health Services	Entire state 1973	Connecticut
20	Karmanos Cancer Institute	3 counties 1973	Metropolitan Detroit
21	Research Corporation of Hawaii	Entire state 1973	Hawaii
22	University of Iowa	Entire state 1973	Iowa
23	University of New Mexico	Entire state 1973	New Mexico
25	Fred Hutchinson Cancer Research Center	13 counties 1974	Seattle-Puget Sound
26	University of Utah	Entire state 1973	Utah
27	Emory University	5 counties 1975	Metropolitan Atlanta
31	Northern California Cancer Center	4 counties 1992	San Jose-Monterey
33	University of New Mexico	Arizona 1973	Arizona Indians
35	University of Southern California	1 county 1992	Los Angeles
37	Emory University	10 counties 1978	Rural Georgia

A specific 2-digit has been assigned to each participant in the SEER Program.

**NOTE:* See list of county codes for each area in Appendix A.

Patient ID Number

The Patient ID Number is issued by the SEER participant to identify the person to that participating registry.

If the Patient ID Number is less than 8 digits, enter leading zeros to create an 8-digit number. *For example:* Case #7034 will be coded as '00007034.'

All computer records pertaining to the same person must have an identical Patient ID Number and the same SEER Participant Number. The combination of this number plus the SEER Participant Number identifies a unique patient in the SEER database.

| In previous editions of the SEER Program Code Manual, the Patient ID Number was called the Case Number.

Record Number

Code
01 One or first of more than one record for person
02 Second record for person
..
..
..
nn Last of nn records for person

A unique sequential number is assigned by the SEER participant to each record for the person.

The Patient ID Number plus the SEER Participant Number plus the Record Number identifies a unique record or tumor in the SEER database.

All records submitted to SEER must have continuous record numbers beginning with 01. The highest number assigned represents the total number of records submitted for that person.

The Information Source section contains only the field Type of Reporting Source at this point.

Type of Reporting Source

Code
1 Hospital Inpatient/Outpatient or Clinic
3 Laboratory Only (Hospital or Private)
4 Physician's Office/Private Medical Practitioner (LMD)
5 Nursing/Convalescent Home/Hospice
6 Autopsy Only
7 Death Certificate Only

This field provides information to help assess the completeness and reliability of the data in other fields, to indicate the number of patients in the registry who were not hospitalized as inpatients or outpatients for their cancers, and to identify the cases in the registry diagnosed by autopsy or death certificate only. The code in this field should reflect all source documents used to prepare the abstract, rather than only the source of original casefinding.

Within codes 1 to 5, assign codes in the following priority:
Hospital/Clinic (code 1)
Physician office (code 4)
Nursing Home (code 5)
Laboratory (code 3)

Code '1,' Hospital Inpatient/Outpatient or Clinic, includes outpatient services of HMOs and large multi-specialty physician group practices where at a minimum the reports from multiple physicians and laboratories are filed in a single medical record for the patient.

Code '3,' Laboratory Only (Hospital or Private) is used when the laboratory is the only source of the case.

Code '4,' Physician's Office/Private Medical Practitioner (LMD) is used when a patient is diagnosed in the physician's office and never is admitted to a hospital/clinic (code '1') as an inpatient or outpatient.

Code '5,' Nursing/Convalescent Home/Hospice, is used when the patient is diagnosed in a long-term care facility.

Code '6,' Autopsy Only, means that the cancer was not diagnosed even as a clinical diagnosis while the patient was alive. If the patient was an inpatient with another admitting diagnosis and an autopsy disclosed the cancer for the first time, code '6' is proper. Autopsy findings take precedence over death certificate information, i.e., code '6' takes precedence over code '7.' However, a clinical diagnosis of cancer at any of the sources coded '1'-'5' has priority over confirmation at autopsy.

For Autopsy Only (code '6') cases:
1. Date of Diagnosis (IV.01) must be the date of death.
2. For breast cases diagnosed on or after January 1, 1990, and for prostate and testis cases diagnosed on or after January 1, 1998, code Tumor Markers 1 and 2 (IV.07.A, IV.07.B) to '0'; for all other cases code '9.' For testis cases diagnosed on or after January 1, 1998, code Tumor Marker 3 to '0'; for all other cases, code '9.'
3. Code Date Therapy Initiated (V.01) to '000000.'
4. For lung and leukemia diagnoses before 1998, code Radiation to the Brain and/or Central Nervous System (V.04) to '0'; for all other cases code '9.'
5. Code Reason for No Cancer-Directed Surgery (V.02.G) to '2.'
6. Code all remaining treatment fields (V.02.A through V.02.E, V.03, V.05-V.09) to zero.
8. For prostate cancer cases diagnosed after 1/1/1995, code EOD (IV.12.E) to '9999099999' and pathologic extension (IV.12.F) to any code '00' - '90.'

Code '7,' Death Certificate Only (including Coroner's case), is used only when "follow-back" activities have produced no other medical reports — the death certificate is truly the only source of information. Often a case is reported first via the death certificate, but later registry action yields missing or additional medical reports. Such additional reports take precedence.

For Death Certificate Only (code '7') cases:

1. Date of Diagnosis (IV.01) must be the date of death.
2. Code all Tumor Markers (IV.07.A, IV.07.B, IV.07.C) to '9.'
3. Code Diagnostic Confirmation (IV.08) to '9.'
4. Code Date Therapy Initiated (V.01) to '999999.'
5. Code Site-Specific Surgery (V.02A) to '99.'
6. Code Reason for No Cancer-Directed Surgery (V.02.G) to '9.'
7. Code Radiation Sequence with Surgery (V.05) to '0.'
8. Code all remaining treatment fields (V.02.B through V.02.E, V.03, V.04, V.06-V.09) to '9.'
9. For prostate cases diagnosed after 1/1/1995, code EOD (IV.12.E) to '9999099999' and pathologic extension (IV.12.F) to '90.'

Blanks should be submitted in this field.

Demographic Information section includes the basic characteristics of the person with this cancer, such as place of residence, place and date of birth, age, race, ethnicity, sex, and marital status. These characteristics are used to describe the cancer population, to compute incidence and survival rates, and to assess risk.

Place of Residence at Diagnosis

To ensure comparability of definitions of cases and the population at risk (numerator and denominator), SEER rules for determination of residency at diagnosis are to be identical or comparable to rules used by the Census Bureau whenever possible.

The residence at diagnosis is generally the place of usual residence as stated by the patient or, as the Census Bureau states, "the place where he or she lives and sleeps most of the time or the place where the person considers to be his or her usual home." Residency is determined without regard to legal status or citizenship.

Special rules apply to certain categories of persons whose residence is not immediately apparent:

Persons with More than One Residence (e.g., "snowbirds") are considered residents of the place they designate as their residence at the time of diagnosis if their usual residence cannot be determined.

Persons with No Usual Residence (e.g., transients or homeless persons) are considered residents of the place where they were staying when diagnosed with cancer. This may be the address of a shelter or the hospital where the diagnosis was made.

Persons Away at School: College students are considered residents of the area in which they are living while attending college, but children in boarding schools below the college level are considered residents of their parents' home.

Persons in Institutions: According to the Census Bureau, "Persons under formally authorized, supervised care or custody" are considered residents of the institution. This includes incarcerated persons; persons in nursing, convalescent, and rest homes; persons in homes, schools, hospitals, or wards for the physically handicapped, mentally retarded, or mentally ill; and long-term residents of other hospitals, such as Veterans Administration (VA) hospitals.

Note: Rules used by departments of vital statistics for classification of residency at time of death may differ from Census Bureau or SEER rules. For example, persons who die in nursing homes may be considered on the death certificate as residents of the place they lived before entering the nursing home, or of a residence they own but were not living in, rather than residents of the nursing home at death. It is important to review each case carefully and apply CensusBureau/SEER rules to determine residency, regardless of residency stated on the death certificate.

Persons in the Armed Forces and on Maritime Ships (Merchant Marine): Members of the armed forces are considered residents of the area in which the installation is located. For military personnel and their family members, use the stated address of the patient, whether on the installation or in the surrounding community.

The Census Bureau has formulated detailed rules for determining residency of persons assigned to Navy and Coast Guard ships and maritime ships. The rules include reference to such information as a ship's deployment, port of departure and destination, and its homeport. (Rules were simplified for the 1990 Census.) Refer directly to Census Bureau publications for the detailed rules to be applied.

County

Valid county codes for county of residence at diagnosis can be found in Appendix A.

If a person is known to be a resident of a particular SEER area, but the exact county is unknown, code as 999.

Census Tract/Block Numbering Area (BNA)

The census tract/block numbering area is assigned to the patient's residence at the time of diagnosis. For cases diagnosed 1988 and forward, 1990 definitions of census tract and block numbering area must be used.

If an area is assigned a census tract/block numbering area (BNA) code and the code is not available, code as '999999.'

If an area is not assigned a census tract or BNA (1980 or prior censuses only), code as '000000.'

Census tract numbers should be right justified and zero filled so that all six positions have a code entered. For purposes of coding census tract, assume that the decimal point is located ***between*** the fourth and fifth positions of this field. Thus, census tract '409.6 ' would be coded '040960'and census tract '516.21' would be coded '051621.'

BNA codes are 6 digits in length, as are census tract codes. They can be distinguished by their range. Census tract codes range from 0001.00 to 9499.99, while BNAs range from 9501.00 to 9989.99. The decimal point is ignored. For example, BNA code 9607.23 would be coded '960723.'

A census tract is a small statistical subdivision of a county with (generally) between 2,500 and 8,000 residents. The boundaries of census tracts are established cooperatively by local committees and the Census Bureau. An attempt is made to keep the same boundaries from census to census so that historical comparability will be maintained. This goal is not always achieved; old tracts may be subdivided due to population growth, disappear entirely, or have their boundaries changed. Between 1970 and 1980 the number of tracts increased by over 20 percent. Thus it is important to know which definitions were used for the coding of the census tracts: the 1970 definitions, the 1980 definitions, or starting with 1988 diagnoses, the 1990 definitions.

Some parts of the country identify areas with block numbering areas (BNAs) codes. These are the geographic equivalent of a census tract. BNAs were implemented in the 1990 census. The BNA is always a subunit of a county and census tracts/BNAs are mutually exclusive; that is, a given county is subdivided into either census tracts or BNAs, but not both. There may be as few as one or two BNAs per county, or more than 20 BNAs per county.

Note that Block Group coding is different than block numbering area coding and is not currently collected by SEER.

Coding System for Census Tract

Code
0 Not tracted
1 1970 Census Tract Definitions (1973-77)
2 1980 Census Tract Definitions (1978-87)
3 1990 Census Tract Definitions (1988+)
| 4 2000 Census Tract Definitions

| **Note:** Do not implement code '4' until instructed by SEER.

Census Tract Certainty

Code
1 Census tract/BNA based on complete and valid street address of residence
2 Census tract/BNA based on residence ZIP+4
3 Census tract/BNA based on residence ZIP+2
4 Census tract/BNA based on residence ZIP only
5 Census tract/BNA based on ZIP of post office box
9 Unable to assign census tract or block numbering based on available information/unknown

This field is a code indicating the basis of assignment of census tract or block numbering area (BNA) for an individual record. It is helpful in identifying cases census tracted/BNA'd from incomplete information or a post office box address. Most of the time, this information is provided by a geocoding vendor service. Alternatively, the code is manually assigned by central registry staff. Codes are hierarchical, with lower numbers having priority.

Use code '1' when census tract or block numbering area is assigned with certainty. This can result either from a computer match using geocoding software or from manual searches.

Example 1 Complete and valid street address used.

Example 2 Rural route or incomplete street address is used, but is known to lie entirely within one census tract.

Use codes '2' through '5' when census tract or block numbering area is assigned with some uncertainty.

Example 3 Street address is incomplete or invalid, or only rural route number is available, but ZIP code of residence is known. The case may be geocoded manually or geocoded using software. The case is placed at the geographic center of the ZIP code area, i.e., the ZIP code "centroid." *Use code '4.'*

Example 4 Post office box number and ZIP code used. *Use code '5.'*

Note: Avoid using P.O. box mailing address, when possible, as this is not the true residence of the patient.

Use code '9' when the ZIP code is missing, when the complete address of the patient cannot be determined or when there is insufficient information to assign census tract or BNA.

Use of this code is required effective with cases diagnosed 1/1/98 and after. It is strongly suggested that this information be obtained from the geocode vendor for cases back to 1988.

Blanks should be submitted in this field.

Place of Birth

See Appendix B in this manual for numeric and alphabetic lists of places and codes.

Use the most specific code possible.

When the SEER Geocodes were originally assigned during the 1970s, the United States owned or controlled islands in the Pacific. Since then many of these islands have either been given their independence or have had control turned over to another country. To maintain consistent information over time, however, these islands are still to be coded to the original code. The names have been annotated to indicate the new political designation. The alphabetic list indicates the correct code.

Date of Birth

Date of Birth is a 6-digit field. The first two digits indicate the month; the last four digits identify the year.

Month

Code
01 January
02 February
03 March
04 April
05 May
06 June
07 July
08 August
09 September
10 October
11 November
12 December
99 Unknown

Year

Code
All four digits of year
9999 Unknown

If age at diagnosis and year of diagnosis are known, but year of birth is unknown, then year of birth should be calculated and so coded. Month would be coded as '99.'

Age at Diagnosis

Code	
000	Less than one year old
001	One year old, but less than two years old
002	Two years old
...	
...	(actual age in years)
...	
101	One hundred one years old
...	
...	
...	
120	One hundred twenty years old
999	Unknown age

The age of the patient at diagnosis is measured in completed years of life, i.e., age at LAST birthday.

If year of birth and year of diagnosis are known, but age is unknown, calculate age at diagnosis.

Race

Code
01 White
02 Black
03 American Indian, Aleutian, or Eskimo
04 Chinese
05 Japanese
06 Filipino
07 Hawaiian
08 Korean
09 Asian Indian, Pakistani
10 Vietnamese
11 Laotian
12 Hmong
13 Kampuchean
14 Thai (effective with 1994 diagnoses)
20 Micronesian, NOS
21 Chamorran
22 Guamanian, NOS
25 Polynesian, NOS
26 Tahitian
27 Samoan
28 Tongan
30 Melanesian, NOS
31 Fiji Islander
32 New Guinean
96 Other Asian, incl. Asian, NOS and Oriental, NOS
97 Pacific Islander, NOS
98 Other
99 Unknown

| Codes 08-13 became effective with diagnoses on or after January 1, 1988.

| Code 14 became effective with diagnoses on or after January 1, 1994.

Codes 20-97 became effective with diagnoses on or after diagnosed January 1, 1991. SEER participants San Francisco, San Jose-Monterey, and Los Angeles are permitted to use codes 14 and 20-97 for cases diagnosed after January 1, 1987.

This field is used to code the race of the person and is to be used in conjunction with III.07, Spanish Surname or Origin.

Persons of Mexican, Puerto Rican, or Cuban origin are usually white.

If a person's race is recorded as a combination of white and any other race, code to the appropriate other race.

If a person's race is recorded as a combination of Hawaiian and any other race(s), code the person's race as Hawaiian.

Otherwise, code to the first stated non-white race ('02' - '98').

When the race is recorded as "Negro" or "African-American," code race as '02.'

When the race is recorded as "Oriental," "Mongolian," or "Asian" and the place of birth is recorded as China, Japan, the Philippines, or another Asian nation, code the race based on birthplace information. *For example:* if the person's race is recorded as "Asian" and the place of birth is recorded as "Japan," code race as '05.'

Spanish Surname or Origin

Code
0 Non-Spanish/Non-Hispanic
1 Mexican
2 Puerto Rican
3 Cuban
4 South or Central American (except Brazil)
5 Other specified Spanish/Hispanic Origin (includes European)
6 Spanish, NOS; Hispanic, NOS; Latino, NOS
7 Spanish surname only (effective with diagnoses on or after 1/1/94)
9 Unknown whether Spanish or not

This field is used to denote those persons of Spanish surname or origin. Persons of Spanish surname/origin may be of any race.

Portuguese and Brazilians are not considered Spanish and should be coded '0.'

Use code '6' when there is evidence other than surname or maiden name that the person is Hispanic, but he/she cannot be assigned to any of the categories '1' - '5.'

Use code '7' when the only evidence of person's Hispanic origin is surname or maiden name, and there is no contrary evidence that the patient is not Hispanic.

The effective date to begin using code '7' is January 1, 1994.

Description

This field contains codes identifying ethnicity as determined by a software algorithm or computer list-based method to identify cancer patients'ethnicity based on last name or maiden name. The effective date for implementation of this field is for cases diagnosed January 1, 1994, and after.

There are two parts to this field:

III.08.A Computed Ethnicity
III.08.B Computed Ethnicity Source.

Rationale

One method of identifying persons of Hispanic origin is to apply a standard computer list or algorithm to the patient's surname and/or maiden name. Across large populations, this has the advantage of being reproducible and facilitating comparisons between areas using identical methods. It may be possible to identify population denominators in which the same method was used to identify Hispanics. Generally only central registries will have this capability.

This field provides coding to indicate both that such a computerized name-based method was applied and the results of the method. Coding is independent of that in the Spanish/Hispanic Origin field. The computer-derived ethnicity may be different from the ethnicity reported by registries as "Spanish Surname Only" (code '7' in the Spanish/Hispanic Origin (All Sources) field, since that field may include manual review, whereas this field shows the results of computer rules only.

Computed Ethnicity

Code

0 No match was run for 1994 and later cases
1 Non-Hispanic last name and non-Hispanic maiden name
2 Non-Hispanic last name, didn't check maiden name (or male)
3 Non-Hispanic last name, missing maiden name
4 Hispanic last name, non-Hispanic maiden name
5 Hispanic last name, didn't check maiden name (or male)
6 Hispanic last name, missing maiden name
7 Hispanic maiden name (females only) (regardless of last name)
Blank 1993 and earlier cases

Computed Ethnicity Source

Code

0 No match was run for 1994 and later cases
1 Census Bureau list of Spanish surnames, NOS
2 1980 Census Bureau list of Spanish surnames
3 1990 Census Bureau list of Spanish surnames
4 GUESS program
5 Combination list including South Florida names
6 Combination of Census and other locally generated list
7 Combination of Census and GUESS, with or without other lists
8 Other type of match
9 Unknown type of match
Blank 1993 and earlier cases

Sex

Code
1 Male
2 Female
3 Other (Hermaphrodite)
4 Transsexual
9 Not stated/Unknown

Marital Status at Diagnosis

Code
1 Single (never married)
2 Married (including common law)
3 Separated
4 Divorced
5 Widowed
9 Unknown

Persons of the opposite sex living together as part of a long-term personal relationship would be coded to '2,' Married (including common law).

Persons of the same sex living together as part of a long-term personal relationship would be coded according to their legal status (usually single, separated, divorced or widowed).

Blanks should be submitted in this field.

Page intentionally blank.

The “Description of This Neoplasm” section includes basic information about this cancer, such as, date of diagnosis, sequence number, primary site, laterality at diagnosis, morphology, tumor markers, diagnostic confirmation, diagnostic procedures, and extent of disease.

Date of Diagnosis is a 6-digit field representing date of the first diagnosis of this cancer. The first two digits indicate the month; the last four digits identify the year.

Month

Code
01 January
02 February
03 March
04 April
05 May
06 June
07 July
08 August
09 September
10 October
11 November
12 December
99 Unknown

Year

Code
All four digits of year

The diagnosis date refers to the first diagnosis of this cancer by any *recognized medical practitioner*. This is often a clinical diagnosis and may not ever be confirmed histologically. Even if confirmed later, the diagnosis date refers to the date of the first clinical diagnosis and not to the date of confirmation. If medical and/or pathological review of a previous condition indicates that the patient had cancer at an earlier date, then the earlier date is the date of diagnosis, i.e., the date of diagnosis is back-dated.

The date of diagnosis for "Death Certificate Only" cases is the date of death.

The date of diagnosis for "Autopsy Only" cases is the date of death.

In the absence of an exact date of diagnosis, make the best approximation:

1. If the only information is "Spring of," "Middle of the year," or "Fall," approximate these as April, July, and October, respectively. For "Winter of" it is important to determine whether the beginning or end of the year is meant before approximating the month.

2. If there is no basis for an approximation, code the month of diagnosis as '99.'

3. If necessary, approximate the year.

4. Date of first cancer-directed therapy may be used as the date of diagnosis if cancer-directed therapy was initiated before cancer was confirmed.

Sequence Number--Central

Code
00 One primary only
01 First of two or more primaries
02 Second of two or more primaries
..
.. (Actual number of this primary)
..
10 Tenth of ten or more primaries
11 Eleventh of eleven or more primaries
..
25 Twenty-fifth of twenty-five or more primaries
98 Cervix carcinoma in situ diagnosed on or after 1/1/1996
99 Unspecified sequence number

Sequence Number--Central describes the chronology of diagnoses of all primary malignant and/or in situ cancers (as defined on pages 7-37) over the entire lifetime of the person, including the years before the registry participated in the SEER Program. Some diagnoses have been classified as malignancies only since 1990 (when ICD-O-2 was published), however. Cases of these diseases that predate ICD-O-2 are excluded from the assignment of sequence number. Diagnoses classified as malignancies are listed on the last page of ICD-O-2. See also "Newly Reportable Diagnoses in ICD-O-2," below.

Sequence Number--Central may not be the same as the patient's sequence number in a hospital-based registry.

If two or more independent primaries are diagnosed at the same time, the lowest sequence number will be assigned to the diagnosis with the worst prognosis. This means extent of disease and morphology must be considered. If no difference in prognosis is evident, the decision must be arbitrary.

Carcinoma in situ of the cervix

Effective with cases diagnosed on or after 1/1/1996, carcinoma in situ (CIS) of the cervix is no longer reportable to SEER. If these cases are collected by a SEER participant, they are to be sequenced with code 98 to indicate that, while it is a malignancy, it should be excluded from SEER Program sequencing. All subsequent primaries should be numbered consecutive to the first primary. If the CIS was diagnosed before 1996, it is to be included in the sequencing.

Example 1 CIS of cervix diagnosed before 1/1/96

Thyroid carcinoma diagnosed August 1988	Sequence 01
CIS of cervix diagnosed June 1990	Sequence 02
Lobular carcinoma in situ of breast diagnosed April 1994	Sequence 03

Example 2 CIS of cervix diagnosed on or after 1/1/1996

Acute lymphocytic leukemia diagnosed September 1991	Sequence 01
CIS of cervix diagnosed March 1996	Sequence 98
Malignant polyposis of the colon diagnosed May 1997	Sequence 02

Example 3A Other cancer and CIS of cervix diagnosed on or after 1/1/1996

Carcinoma in situ of left breast diagnosed May 1996	Sequence 00
Carcinoma in situ of cervix diagnosed December 1996	Sequence 98

Example 3B CIS of cervix and other cancer diagnosed on or after 1/1/1996
Carcinoma in situ of cervix diagnosed June 1996 Sequence 98
Malignant melanoma of thorax diagnosed August 1997 Sequence 00

Newly Reportable Diagnoses in ICD-O-2

When the Field Trial Edition of ICD-O-2 was developed in the 1980s and ICD-O-2 was published in 1990, additional terms were included as malignancies, making these diagnoses newly reportable to SEER. If one of these had been diagnosed before it became reportable to SEER, it is not to be included in the assignment of sequence number.

Example 4 For a person with
a. Waldenstrom's macroglobulinemia diagnosed April 1978
b. Breast cancer diagnosed September 1988
Only one record would be submitted – the breast cancer with a Sequence Number of '00.'

Example 5 For a person with
a. Waldenstrom's macroglobulinemia diagnosed April 1990
b. Breast cancer diagnosed September 1994
Both records would be submitted– the Waldenstrom's macroglobulinemia with a Sequence Number of '01' because it became reportable to SEER with January 1988 diagnoses, and the breast cancer with a Sequence Number of '02.'

Whenever diagnoses are added or deleted, sequence number(s) must be updated as necessary.

Example 6
If a person has a breast cancer diagnosed in 1995 with a sequence number of '00' and a colon cancer diagnosed in 1998, the sequence number of the colon cancer is coded '02'; the sequence number of the breast cancer is changed to '01.'

Cancers Diagnosed Before the Start of SEER Data Collection

Cancers diagnosed before January 1973 must be sequenced as part of the patient's history but should not be reported to SEER.

Example 7 For a person with
a. Breast cancer diagnosed in 1968
b. Colon cancer diagnosed in 1988

Only one record would be submitted – the colon cancer with a sequence of '02.'

Primary Site

The Topography section of the *International Classification of Diseases for Oncology*, Second Edition (ICD-O-2) is used for coding the primary site of all cancers reported to SEER.

Site codes may be found in the Topography—Numeric Section (pages 1-20) of ICD-O-2, or in the Alphabetic Index (pages 51-136) of ICD-O-2, which includes both Topography and Morphology terms. Topography codes are indicated by a 'C' as part of the code. For all site codes in ICD-O-2, the SEER Program drops the decimal point.

Example A patient's record states the primary site is "cardia of stomach." This site is located in the Alphabetic Index, under either "cardia" or "stomach" and is found to be C16.0. In coding for SEER, drop the decimal point; then enter the four-character code, 'C160.'

The Introduction of ICD-O-2 (page *xxx*) discusses the topic of "Site-Specific Morphology Terms." If the patient record has a site-specific morphologic term listed in ICD-O-2, use this topography code if no definite site is given or if only a metastatic site is given.

Example If the diagnosis is hepatoma (8170/3) with no other statement about topography, code primary site as 'C220' (liver), since this morphology is always indicative of a primary malignancy in the liver.

Leukemia is coded to bone marrow ('C421'), since blood cells originate in the bone marrow.

Lymphomas originating in lymph nodes are coded to lymph nodes. If an extranodal site is designated as the primary, code to this site. For example, a malignant lymphoma of the stomach is coded to stomach ('C16_'). Be sure this is the primary site of origin and not just a site where the biopsy was taken. If no primary site is stated, code to lymph nodes ('C77_'). For lymphomas, a mass specified only as "retroperitoneal," "inguinal," "mediastinal," or "mesentery" (with no specific information as to tissue involved) is to be coded as a nodal primary rather than to an extranodal primary site. If a lymphoma is diagnosed in both a nodal and extranodal site, consult a physician to determine where the lymhoma originated and code the primary to that site. If the site of origin is determined to be the lymph node(s), code to the appropriate lymph node chain or C77.8, lymph nodes of multiple regions. If the primary cannot be determined, code the lymphoma to C77.9, lymph nodes, NOS.

Kaposi's sarcoma is coded to the site in which it arises. If Kaposi's sarcoma arises in skin and another site simultaneously, code to skin ('C44_'). If no primary site is stated, code to skin ('C44_').

In ICD-O, there are two different systems of dividing the esophagus into anatomic regions, one dividing the esophagus into thirds, and the other into cervical, thoracic and abdominal sections. Assign the primary site code that describes the location of the tumor in the same way that the tumor's location is described in the medical record.

Definitions

Primary Versus Secondary (Metastatic) Sites

The SEER Program identifies cases only according to the primary site and NOT a metastatic site. If the site of origin cannot be determined exactly, it may be possible to use the NOS category of an organ system or the Ill-Defined Sites ('C760' - 'C768'). (See page *xx* of ICD-O-2.) If the primary site is unknown or if the only information available pertains to a secondary site, code 'C809.'

Where the record is not entirely explicit, a physician should determine whether the cancer site is primary or secondary and which site would be the most definitive one.

Multiple Subsites

The rules on pages 7-37 should be used in determining the number of primary cancers to be reported and the appropriate site code for each.

Note: Since the publication of the second edition of the SEER Program Code Manual, there has not been a field name corresponding to Section IV, Field 04.

Laterality at Diagnosis

Code
0 Not a paired site
1 Right: origin of primary
2 Left: origin of primary
3 Only one side involved, right or left origin unspecified
4 Bilateral involvement, lateral origin unknown: stated to be single primary
Both ovaries involved simultaneously, single histology
Bilateral retinoblastomas
Bilateral Wilms's tumors
9 Paired site, but no information concerning laterality; midline tumor

Laterality at diagnosis describes this primary site only.

Use code '3' if the laterality is not known but the tumor is confined to a single side of the paired organ.

Use code '9' when there is a midline tumor or when there is a paired site but the laterality is unknown because disease is extensive.

Example 1 Pathology report states 'patient has one 2 cm carcinoma in the upper pole of the kidney.'
Code laterality as '3,' because laterality is not specified but tumor is not present on both sides of a paired site.

Example 2 Admitting history states that patient has a positive sputum cytology but is being treated with radiation to painful bony metastases.
Code laterality as '9,' because there is no information concerning laterality in the implied diagnosis of lung cancer and the case is metastatic.

Example 3 Patient has a melanoma just above the umbilicus excised as an outpatient.
Use laterality code '9,' midline.

Laterality codes of '1' - '9' must be used for the following sites except as noted. Only *major headings* are listed. However, laterality should be coded for all anatomic subsites included in ICD-O-2 unless specifically excluded. Such exclusions must be coded '0.'

C07.9	Parotid gland
C08.0	Submandibular gland
C08.1	Sublingual gland
C09.0	Tonsillar fossa
C09.1	Tonsillar pillar
C09.8	Overlapping lesion of tonsil
C09.9	Tonsil, NOS
C30.0	Nasal cavity (excluding nasal cartilage, nasal septum)
C30.1	Middle ear
C31.0	Maxillary sinus
C31.2	Frontal sinus
C34.0	Main bronchus (excluding carina)
C34.1-C34.9	Lung
C38.4	Pleura

C40.0	Long bones of upper limb, scapula and associated joints
C40.1	Short bones of upper limb and associated joints
C40.2	Long bones of lower limb and associated joints
C40.3	Short bones of lower limb and associated joints
C41.3	Rib, Clavicle (excluding sternum)
C41.4	Pelvic Bones (excluding sacrum, coccyx, and symphysis pubis)
C44.1	Skin of eyelid
C44.2	Skin of external ear
C44.3	Skin of other and unspecified parts of face (if midline, use code '9')
C44.5	Skin of trunk (if midline, use code '9')
C44.6	Skin of upper limb and shoulder
C44.7	Skin of lower limb and hip
C47.1	Peripheral nerves and autonomic nervous system of upper limb and shoulder
C47.2	Peripheral nerves and autonomic nervous system of lower limb and hip
C49.1	Connective, subcutaneous, and other soft tissues of upper limb and shoulder
C49.2	Connective, subcutaneous, and other soft tissues of lower limb and hip
C50.0-C50.9	Breast
C56.9	Ovary
C57.0	Fallopian tube
C62.0-C62.9	Testis
C63.0	Epididymis
C63.1	Spermatic cord
C64.9	Kidney, NOS
C65.9	Renal pelvis
C66.9	Ureter
C69.0-C69.9	Eye
C74.0-C74.9	Adrenal gland
C75.4	Carotid body

NOTE: Laterality may be submitted for sites other than those required above.

Morphology

The *International Classification of Diseases for Oncology*, Second Edition (ICD-O-2), is used for coding the morphology of all cancers. In the Alphabetic Index all morphology codes are indicated by an 'M-' preceding the code number. The 'M-' should not be coded. The '/' appearing between the histology and behavior codes is also not recorded.

Morphology is a 6-digit code consisting of three parts:

A Histologic type (4 digits)
B Behavior code (1 digit)
C Grading or differentiation; or for lymphomas and leukemias, designation of T-cell, B-cell, null cell, or NK cell (1 digit)

The morphology of a tumor can be coded only after the determination of multiple primaries has been completed. (See pages 7-37 for rules to determine the number of primaries.)

To code morphology (histology, behavior and grade), use the best information from the entire pathology report (microscopic description, final diagnosis, comments).

General Rule

If the final diagnosis gives a specific histology, code it. Similarly, if grade is specified in the final diagnosis, code it. Exceptions are found on the following pages under "Histologic Type," "Behavior Code," and "Grade, Differentiation, or Cell Indicator."

Histologic Type

The morphology can be coded only after the determination of multiple primaries has been completed. (See pages 7-37 for rules to determine the number of primaries.)

In coding histologic type, usually the FINAL pathologic diagnosis is coded. All pathology reports for the primary under consideration should be used. Although the report from the most representative tissue is usually the best, sometimes all of the cancerous tissue may be removed at biopsy and therefore the report from the biopsy must be used.

If a definitive statement of a more specific histologic type (higher code in ICD-O-2) is found in the microscopic description or in the comment, the more specific histologic diagnosis should be coded.

Code the histology using the following rules:

Single lesion – same behavior

1. Code the histologic type using the following rules in sequence.

    A. a combination code if one exists

    Examples of when to use the combination code

    "...predominantly lobular with a ductal component." *Use the combination code for lobular and ductal carcinoma (8522/3).*

    "Invasive breast carcinoma – predominantly lobular with foci of ductal carcinoma." *Use the combination code for lobular and ductal carcinoma (8522/3).*

    B. the more specific term if one is an 'NOS' term (carcinoma) and the other term is more specific

    Examples of when to use the more specific codes

    "Adenocarcinoma (8140/3) of the sigmoid colon, predominantly mucin-producing." *Code to mucin-producing adenocarcinoma (8481/3).*

    "Invasive carcinoma, probably squamous cell type." *Code squamous cell (8070/3) since it is more specific than carcinoma (8010/3).*

    "Adenocarcinoma of prostate, with cribriform differentiation." *Code cribriform carcinoma (8201/3) since it is more specific than adenocarcinoma.*

    C. the majority of the tumor if Rule 1A or Rule 1B above cannot be used

Terms that indicate a majority of tumor	Terms that do not indicate a majority of tumor
"predominantly..."	"...with foci of..."
"...with features of..."	"...focus of/focal..."
"...major"	"...areas of..."
"type"‡	"...elements of..."
"with ... differentiation"‡	"...component"‡

‡ Terms approved for use effective with 1/1/1999 diagnoses and after.

continued...

***Single lesion – same behavior Rule 1C (continued*)**

Ignore terms that do not indicate a majority of tumor. When both terms are specific (in other words, not NOS) and no combination code exists, code the majority of the tumor.

Example of majority tumors:

"Predominantly leiomyosarcoma associated with foci of well-developed chondrosarcoma." *Code the majority tumor – leiomyosarcoma (8890/3).*

2. Histologies with the same behavior code are coded to the higher histology code in ICD-O-2 unless a combination histology code is available. Rule 1 takes precedence over rule 2.

   Example Ductal carcinoma (8500/3) and medullary carcinoma (8510/3) would be coded to the higher number (8510/3).

Single lesion – different behaviors

1. Histologies with different behavior codes are coded to the histology associated with the malignant behavior.

   Example Squamous cell carcinoma in situ (8070/2) and papillary squamous cell carcinoma (8052/3) would be coded papillary squamous cell carcinoma (8052/3).

   ***Exception*:** If the histology of the invasive component is an 'NOS' term (e.g., carcinoma, adenocarcinoma, melanoma, sarcoma), then use the specific term associated with the in situ component and an invasive behavior code.

   Example of exception: Squamous cell carcinoma in situ (8070/2) with areas of invasive carcinoma (8010/3) would be coded squamous cell carcinoma (8070/3).

Multiple lesions – considered a single primary

1. If one lesion is stated to be an 'NOS' term (e.g., carcinoma, adenocarcinoma, melanoma, sarcoma) and the second lesion is an associated but more specific term (e.g., large cell carcinoma, mucinous adenocarcinoma, spindle cell sarcoma, respectively) code to the more specific term.

2. For colon and rectum primaries:

   When an adenocarcinoma (8140/_; in situ or invasive) arises in the same segment of the colon or rectum as an adenocarcinoma in a polyp (8210/_, 8261/_, 8263/_), code as adenocarcinoma (8140/_).

   When a carcinoma (8010/_; in situ or invasive) arises in the same segment of the colon or rectum as a carcinoma in a polyp (8210), code as carcinoma (8010/_).

3. If the histologies of multiple lesions can be represented by a combination code, use that code.

NEW HISTOLOGY CODES FOR LYMPHOMAS AND LEUKEMIAS

The following new terms, synonyms and codes have been added to the *International Classification of Diseases for Oncology, Second Edition*.

New Lymphoma Terms. *Effective for cases diagnosed January 1, 1995, and after.*

ICD-O-2 Code	Term
9673/3	Mantle cell lymphoma (*)
9688/36	T-cell rich B-cell lymphoma
9708/3	Subcutaneous panniculitic T-cell lymphoma
9710/3	Marginal zone lymphoma, NOS
9714/3	Anaplastic large cell lymphoma (ALCL), CD30+ (*)
9715/3	Mucosal-Associated Lymphoid Tissue (MALT) lymphoma
9716/3	Hepatosplenic γδ (gamma - delta) cell lymphoma
9717/3	Intestinal T-cell lymphoma
	Enteropathy associated T-cell lymphoma

New Leukemia Terms *Effective for cases diagnosed January 1, 1998, and after.*

ICD-O-2 Code	Term
9821/3	Acute lymphoblastic leukemia, L1 type (*)
	Acute lymphocytic leukemia, L1 type (*)
	Acute lymphoid leukemia, L1 type (*)
	Acute lymphatic leukemia, L1 type (*)
	Lymphoblastic leukemia, L1 type (*)
	FAB L1 (*)
9826/3	FAB L3 (*)
9828/3	Acute lymphoblastic leukemia, L2 type
	Acute lymphocytic leukemia, L2 type
	Acute lymphoid leukemia, L2 type
	Acute lymphatic leukemia, L2 type
	Lymphoblastic leukemia, L2 type
	FAB L2
9840/3	FAB M6 (*)
9861/3	Acute myeloid leukemia, NOS (*)
	Acute myeloblastic leukemia, NOS (*)
	Acute granulocytic leukemia, NOS (*)
	Acute myelogenous leukemia, NOS (*)
	Acute myelocytic leukemia, NOS (*)
9866/3	FAB M3 (*)
9867/3	Acute myelomonocytic leukemia, NOS (*)
	FAB M4 (*)
9871/3	Acute myelomonocytic leukemia with eosinophils
	FAB M4E

continued

(*) new term(s) for an existing number

NEW HISTOLOGY CODES FOR LYMPHOMAS AND LEUKEMIAS, continued

9872/3	Acute myeloid leukemia, minimal differentiation
	Acute myeloblastic leukemia, minimal differentiation
	Acute granulocytic leukemia, minimal differentiation
	Acute myelogenous leukemia, minimal differentiation
	Acute myelocytic leukemia, minimal differentiation
	FAB M0
9873/3	Acute myeloid leukemia without maturation
	Acute myeloblastic leukemia without maturation
	Acute granulocytic leukemia, without maturation
	Acute myelogenous leukemia, without maturation
	Acute myelocytic leukemia, without maturation
	FAB M1
9874/3	Acute myeloid leukemia with maturation
	Acute myeloblastic leukemia with maturation
	Acute granulocytic leukemia, with maturation
	Acute myelogenous leukemia, with maturation
	Acute myelocytic leukemia, with maturation
	FAB M2
9891/3	FAB M5 (*)
	FAB M5A (*)
	FAB M5B (*)
9910/3	Megakaryoblastic leukemia, NOS (C42.1)
	FAB M7

(*) new term(s) for an existing number

Behavior Code

Code
2 Carcinoma in situ; intraepithelial; noninfiltrating; noninvasive
3 Malignant

The usual behavior codes are listed in both the numeric and alphabetic indices of ICD-O-2, following the histology code. If a pathologist calls a cancer in situ ('/2') or malignant ('/3') when it is not listed as such in ICD-O-2, code the stated behavior. (See Table 1, pages xxvi and xxvii, in ICD-O-2.)

SEER does not accept behavior codes 0, 1, 6, or 9. If the only specimen was from a metastatic site, code the histologic type of the metastatic site and code a '3' for the behavior code. The primary site is assumed to have the same histologic type as the metastatic site.

Code the fact of invasion, no matter how limited. Even a pathological diagnosis qualified as "micro-invasive" must be coded malignant, '3.'

Note that in situ is a concept based on histologic evidence. Therefore, clinical evidence alone cannot justify the use of this term.

Synonymous terms for in situ (behavior code '2') are:

| Bowen's disease (not reportable for C44.0-C44.9)
Clark's level 1 for melanoma (limited to epithelium)
confined to epithelium
| Hutchinson's melanotic freckle, NOS (C44._)
| intracystic non-infiltrating
intraductal
intraepidermal, NOS
intraepithelial, NOS
involvement up to but not including the basement membrane
| lentigo maligna (C44._)
| lobular neoplasia (C50._)
| lobular, noninfiltrating (C50._)
noninfiltrating
noninvasive
no stromal invasion
| papillary, noninfiltrating or intraductal
| precancerous melanosis (C44._)
| Queyrat's erythroplasia (C60._)
VAIN III (C52.9)
VIN III (C51._)

| The following in situ diagnoses are not reportable to SEER after 1/1/1996:
| CIN III (C53._)
| Carcinoma in situ of the cervix (C53._)

Grade, Differentiation

Code
1 Grade I; grade i; grade 1; well differentiated; differentiated, NOS
2 Grade II; grade ii; grade 2; moderately differentiated; moderately well differentiated; intermediate differentiation
3 Grade III; grade iii; grade 3; poorly differentiated; dedifferentiated
4 Grade IV; grade iv; grade 4; undifferentiated; anaplastic
5 T-cell; T-precursor
6 B-cell; Pre-B; B-Precursor
7 Null cell; Non T-non B;
8 N K cell (natural killer cell)
9 Cell type not determined, not stated or not applicable

Code '8' was implemented effective with cases diagnosed 1/1/95 and after. The grading or differentiation— or for lymphomas and leukemias the designation of T-cell, B-cell, null cell, or NK (natural killer) cell—is described on updated pages xxix, xxxv and 23 of ICD-O-2.

Code the grade or degree of differentiation as stated in the *FINAL* pathologic diagnosis. If the grade or degree of differentiation is *not* stated in the final pathologic diagnosis, code the grade or degree of differentiation as given in the microscopic description or comment.

Example Microscopic Description: Moderately differentiated squamous cell carcinoma with poorly differentiated areas
Final Pathologic Diagnosis: Moderately differentiated squamous cell carcinoma
Code to the final diagnosis: Moderately differentiated, '2.'

If a diagnosis indicates two different grades or degrees of differentiation (e.g., "well and poorly differentiated," "grade II-III," or "well differentiated grade II"), code to the higher grade code (Rule 6, page *xxvii* or *xlii* in ICD-O-2). Always code the higher grade/differentiation code, even if it does not represent the majority of the lesion.

Example Final Diagnosis: Predominantly grade II, focally grade III.
Code as grade III.

If a needle biopsy or incisional biopsy of a primary site has a differentiation given and the excision or resection does not, code the information from the needle/incisional biopsy.

If there is a difference between the grade given for a biopsy of the primary site and the grade given for the resected specimen, use the higher grade.

If there is no grade provided for the primary site, code as 9, even if a grade is given for a metastatic site.

Usually there will be no statement as to grade for in situ lesions. However, if a grade is stated, it should be coded.

When there is variation in the usual terms for degree of differentiation, code to the higher grade as specified below:

Term	Grade	Code
Low grade	I-II	2
Medium grade; intermediate grade	II-III	3
High grade	III-IV	4
Partially well differentiated	I-II	2
Moderately undifferentiated	III	3
Relatively undifferentiated	III	3

Occasionally a grade is written as "2/3" or "2/4," meaning this is grade 2 of a 3-grade system or grade 2 of a 4-grade system, respectively. To code in a three grade system, refer to the terms "low grade," "medium grade," and "high grade," above.

Do not code low, intermediate or high grade for lymphomas. See the note on page 104.

Coding Grade for Prostate Cases

Usually prostate cancers are graded using Gleason's score or pattern. Gleason's grading for prostate primaries is based on a 5-component system (5 histologic patterns). Prostatic cancer generally shows two main histologic patterns. The primary pattern—that is, the pattern occupying greater than 50% of the cancer—is usually indicated by the first number of the Gleason's grade and the secondary pattern is usually indicated by the second number. These two numbers are added together to create a pattern score, ranging from 2 to 10.

If the pathologist gives only one number and it is less than or equal to 5, assume that it describes a pattern. If only one number is given and it is greater than 5, assume that it is a score. If there are two numbers, assume that they refer to two patterns (the first number being the primary and the second number being the secondary) and sum them to obtain the score.

If expressed as a specific number out of a total of 10, the first number given is the score, e.g., Gleason's 3/10 would be a score of 3.

1. If Gleason's score (2-10) is given, code as follows:

Gleason's score		Grading
2, 3, 4	I	Well Differentiated
5, 6, 7	II	Moderately Differentiated
8, 9, 10	III	Poorly Differentiated

2. If Gleason's pattern (1-5) is given, code as follows:

Gleason's pattern		Grading
1, 2	I	Well Differentiated
3	II	Moderately Differentiated
4, 5	III	Poorly Differentiated

If not identified as Gleason's, assume a non-Gleason grade system and code appropriately. If both are given, code the non-Gleason grade.

Coding Grade for Breast Cases

The following statement was approved by the Uniform Data Standards Committee of NAACCR on 12/13/1995:

> Effective with breast cancer cases diagnosed 1/1/96 and later, when the terms "low," "intermediate," and "high" grade are used and the grading system is specified as (Scarff) Bloom-Richardson, code [the sixth digit] as grade code 1, 2, and 3 respectively. This is an exception to the usual rule for all other grading systems that "low," "intermediate," and "high" are coded 2, 3, and 4 respectively. In the (Scarff) Bloom-Richardson system, if grades 1, 2, and 3 are specified, these should be coded 1, 2 and 3 respectively.

Use grade or differentiation information from the breast pathology report in the following order:

1. Terminology (differentiation: well, moderately, poorly, moderately-well, etc.; grade: i, ii, iii, etc.)
2. Histologic grade (grade i, grade ii, grade iii)
3. Bloom-Richardson scores (range 3-9, converted to grade) (see below)
4. Bloom-Richardson grade (low, intermediate, high)
5. Nuclear grade only

The Bloom-Richardson grading scheme is a semi-quantitative grading method based on three morphologic features of *"invasive no-special-type"* breast cancers. The morphologic features are:

1) degree of tumor tubule formation
2) tumor mitotic activity
3) nuclear pleomorphism of tumor cells (nuclear grade)

For details of the scoring system, see Dalton, Leslie W et al. "Histologic grading of breast carcinoma" in *Cancer* 1994, Vol 73(11), page 2766, Table 2.

To obtain the final Bloom-Richardson score, add score from tubule formation plus number of mitotic score, plus score from nuclear pleomorphism**.** Seven possible scores are condensed into three BR grades. The three grades then translate into well differentiated (BR low grade), moderately differentiated (BR intermediate grade), and poorly differentiated (BR high grade).

CONVERSION TABLE FOR BLOOM RICHARDSON (BR) SCORE AND GRADE

BR combined scores	Differentiation/BR Grade	Grade Code
3, 4, 5	Well-differentiated (BR low grade)	1
6, 7	Moderately differentiated (BR intermediate grade)	2
8, 9	Poorly differentiated (BR high grade)	3

Note: Bloom-Richardson score may also be called modified Bloom-Richardson, Scarff-Bloom-Richardson, SBR Grading, BR grading, Elston-Ellis modification of Bloom-Richardson score, the Nottingham modification of Bloom Richardson score, Nottingham-Tenovus or Nottingham grade.

Grading of Non-Histologically Proven Cases

Where there is no tissue diagnosis, it may still be possible to establish the grade of a tumor through Magnetic Resonance Imaging (MRI) or Positron Emission Tomography (PET). In particular, it is now possible to grade brain tumors by this method. Thus, if there is no tissue diagnosis, but there is a grade/differentiation available from an MRI or PET report, code grade based on those reports. If there is a tissue diagnosis, grade should be from the pathology report only.

SEER Versus AJCC Grade Requirements

SEER requires grade for all primaries if available. According to the *Manual for Staging of Cancer*, Fifth Edition, from the American Joint Committee on Cancer, grade of tumor is required for the following sites to be staged:

C48._	Retroperitoneum and peritoneum (soft tissue sarcoma)
C38.0-C38.3	Heart and mediastinum (soft tissue sarcoma)
C40._, C41._	Bone
C47._, C49._	Connective, Subcutaneous and other soft tissue
C61.9	Prostate gland
C73.9	Thyroid (undifferentiated carcinoma only)

For Lymphomas and Leukemias, Designation of T-cell, B-cell, Null Cell, or NK Cell

Code *ANY* statement of T-cell, B-cell, null cell, or NK cell involvement whether or not marker studies are documented in the patient record. (See page xxiii of ICD-O-2.) Additional terms that should be coded are T-precursor, T-cell phenotype and gamma-delta T (code 5); B-precursor, B-cell phenotype and Pre-B (code 6); non-T– non-B and common cell (code 7); and natural killer (code 8).

For lymphomas and leukemias, information on T-cell, B-cell, null cell, or NK cell has precedence over information on grading or differentiation.

For lymphomas, do not code the descriptions “high grade,” “low grade,” or “intermediate grade” in the Grade, Differentiation, or Cell Indicator field. These terms refer to categories in the Working Formulation of lymphoma diagnoses and not to histologic grade.

Grading Astrocytomas

Astrocytomas are graded according to ICD-O-2 rules in this field. The use of World Health Organization coding of aggressiveness is reserved for assignment of grade for staging. In the absence of other information on grade, code cases as follows:

Term	ICD-O-2 6th digit	Term	ICD-O-2 6th digit
Anaplastic astrocytoma	4	Astrocytoma Grade 1	1
Astrocytoma (low grade)	2	Astrocytoma Grade 2	2
Glioblastoma multiforme	9	Astrocytoma Grade 3	3
Pilocytic astrocytoma	9	Astrocytoma Grade 4	4

Beginning with January 1, 1990, breast cancer diagnoses, SEER collects estrogen receptor status as Tumor Marker 1 and progesterone receptor status as Tumor Marker 2.

Beginning with January 1, 1998, prostate cancer diagnoses, SEER collects acid phosphatase (PAP) as Tumor Marker 1 and prostate specific antigen (PSA) as Tumor Marker 2.

Beginning with January 1, 1998, testicular cancer cases, SEER collects alpha-fetoprotein (αFP or AFP) as Tumor Marker 1, human chorionic gonadotropin (hCG) as Tumor Marker 2, and lactate dehydrogenase (LDH) as Tumor Marker 3.

The results of tumor marker studies are recorded only when performed on the primary tumor or circulating blood (serum).

Tumor Marker 1

Code
0 None done (SX)
1 Positive/elevated
2 Negative/normal; within normal limits (S0)
3 Borderline; undetermined whether positive or negative
4 Range 1 (S1)
5 Range 2 (S2)
6 Range 3 (S3)
8 Ordered, but results not in chart
9 Unknown or no information

For all other cases (except breast, prostate, and testis)

9 Not applicable

Breast and Prostate Cancers
Acceptable codes for breast and prostate cancers are 0, 1, 2, 3, 8, 9.

For Breast cases only, record Estrogen Receptor Status (ERA) in Tumor Marker 1. Record the ERA status from the primary breast tumor.

For prostate cases only, record Acid Phosphatase (PAP) in Tumor Marker 1. Record the highest PAP before any prostate treatment.

Assign codes 1, 2 and 3 on the basis of lab-specific determinations of normal range as noted in the laboratory report.

Tumors too small to evaluate by the conventional estrogen/progesterone receptor assays may be measured by immunostaining. The procedure is based on an antigen-antibody reaction. Include these results when conventional procedures are absent.

Testicular Cancer
Acceptable codes for testicular cancer are 0, 2, 4, 5, 6, 8, 9. For testis cases only, record alpha-fetoprotein (AFP or αFP) in Tumor Marker 1.

The range for the alpha-fetoprotein serum tumor marker is as follows:

Code
0 Not done (SX)
2 Within normal limits (S0)
4 Range 1 (S1) < 1,000 ng/ml
5 Range 2 (S2) 1,000 - 10,000 ng/ml
6 Range 3 (S3) > 10,000 ng/ml
8 Ordered, but results not in chart
9 Unknown or no information

If there are serial serum tumor markers, record the lowest (nadir) value of AFP after orchiectomy in the first course of treatment.

References: *AJCC Cancer Staging Manual, Fifth Edition*. Lippincott-Raven Publishers, 1997.
TNM Classification of Malignant Tumours, Fifth Edition (UICC). Edited by L.H. Sobin and Ch. Wittekind. Wiley-Liss, 1997.

For breast cases diagnosed on or after January 1, 1990, and for prostate and testis cases diagnosed on or after January 1, 1998:

1. Code '0' for all "Autopsy Only" cases
2. Code '9' for all "Death Certificate Only" cases

For all sites except breast diagnosed between January 1, 1990, and December 31, 1997, code '9.'

For all sites except breast, prostate, and testis diagnosed on or after January 1, 1998, code '9.'

For all diagnoses before January 1, 1990, code '9.'

Tumor Marker 2

Code
0 None done (SX)
1 Positive/elevated
2 Negative/normal; within normal limits (S0)
3 Borderline; undetermined whether positive or negative
4 Range 1 (S1)
5 Range 2 (S2)
6 Range 3 (S3)
8 Ordered, but results not in chart
9 Unknown or no information

For all other cases (except breast, prostate, and testis)

9 Not applicable

Breast and Prostate Cancers
Acceptable codes for breast and prostate cancers are 0, 1, 2, 3, 8, 9.

For breast cases only, record the Progesterone Receptor Status (PRA) in Tumor Marker 2. Record the PRA status from the primary breast tumor.

For prostate cancer cases only, record the Prostate Specific Antigen (PSA) in Tumor Marker 2. Record the highest PSA at the time of diagnosis.

Assign codes 1, 2 and 3 on the basis of lab-specific determinations of normal range as noted in the laboratory report.

Tumors too small to evaluate by the conventional estrogen/progesterone receptor assays may be measured by immunostaining. The procedure is based on an antigen-antibody reaction.

Testicular Cancer
Acceptable codes for testicular cancers are 0, 2, 4, 5, 6, 8, 9.
For testis cancer cases only, record the Human Chorionic Gonadotropin (hCG) in Tumor Marker 2.

The range for the human chorionic gonadotropin (hCG) serum tumor marker is as follows:

Code
0 Not done (SX)
2 Within normal limits (S0)
4 Range 1 (S1) < 5,000 mIU/ml
5 Range 2 (S2) 5,000 - 50,000 mIU/ml
6 Range 3 (S3) > 50,000 mIU/ml
8 Ordered, but results not in chart
9 Unknown or no information

If there are serial serum tumor markers, record the lowest (nadir) value of hCG after orchiectomy in the first course of treatment.

References: *AJCC Cancer Staging Manual, Fifth Edition*. Lippincott-Raven Publishers, 1997.
TNM Classification of Malignant Tumours, Fifth Edition (UICC). Edited by L.H. Sobin and Ch. Wittekind. Wiley-Liss, 1997.

For breast diagnoses only on or after January 1, 1990, and for prostate and testis cases diagnosed on or after January 1, 1998:

1. Code '0' for all "Autopsy Only" cases
2. Code '9' for all "Death Certificate Only" cases
3. Code '0' - '9' for all other cases

For all sites except breast diagnosed between January 1, 1990, and December 31, 1997, code '9.' For all sites except breast, prostate, and testis diagnosed on or after January 1, 1998, code '9.'

For all diagnoses before January 1, 1990, code '9.'

Tumor Marker 3

Code
0 Not done (Sx)
1 Positive/elevated
2 Negative/normal; within normal limits (S0)
3 Borderline; undetermined whether positive or negative
4 Range 1 (S1)
5 Range 2 (S2)
6 Range 3 (S3)
8 Ordered, but results not in chart
9 Unknown or no information

For all other cases except testis

9 Not applicable

For testis cases only, record Lactate Dehydrogenase (LDH) in Tumor Marker 3.

The range for the LDH marker is as follows:

Code
0 Not done (SX)
2 Within normal limits (S0)
4 Range 1 (S1) < 1.5 x upper limit of normal for LDH assay
5 Range 2 (S2) 1.5 - 10 x upper limit of normal for LDH assay
6 Range 3 (S3) > 10 x upper limit of normal for LDH assay
8 Ordered, but results not in chart
9 Unknown or no information

The normal range is determined by, and varies according to, the method used to test for LDH. Normal values are usually stated on the laboratory report.

If there are serial serum tumor markers, record the highest value of LDH after orchiectomy in the first course of treatment.

References: *AJCC Cancer Staging Manual, Fifth Edition*. Lippincott-Raven Publishers, 1997.
TNM Classification of Malignant Tumours, Fifth Edition (UICC). Edited by L.H. Sobin and Ch. Wittekind. Wiley-Liss, 1997.

For testis cases diagnosed on or after January 1, 1998:

1. Code ‘0’ for all “Autopsy Only” cases
2. Code ‘9’ for all “Death Certificate Only” cases
3. Code ‘0’ - ‘9’ for all other cases

For all sites except testis diagnosed on or after January 1, 1998, code ‘9.’

For all diagnoses before January 1, 1998, code ‘9.’

Diagnostic Confirmation

Microscopically Confirmed

Code

1 Positive histology
2 Positive cytology, no positive histology
4 Positive microscopic confirmation, method not specified

Not Microscopically Confirmed

Code

5 Positive laboratory test/marker study
6 Direct visualization without microscopic confirmation
7 Radiography and other imaging techniques without microscopic confirmation
8 Clinical diagnosis only (other than 5, 6, or 7)

Confirmation unknown

Code

9 Unknown whether or not microscopically confirmed

Diagnostic Confirmation indicates whether *AT ANY TIME* during the patient's medical history there was microscopic confirmation of the morphology of this cancer. It indicates not only the fact of microscopic confirmation but the nature of the best evidence available. Thus, this is a priority series with code '1' taking precedence. Each number takes priority over all higher numbers.

Code 1: Microscopic diagnoses based upon tissue specimens from biopsy, frozen section, surgery, autopsy, or D and C. Positive hematologic findings relative to leukemia, including peripheral blood smears, are also included. Bone marrow specimens (including aspiration biopsies) are coded as '1.'

Code 2: Cytologic diagnoses based on microscopic examination of cells as contrasted with tissues. Included are smears from sputum, bronchial brushings, bronchial washings, tracheal washings, prostatic secretions, breast secretions, gastric fluid, spinal fluid, peritoneal fluid, pleural fluid, and urinary sediment. Cervical and vaginal smears are common examples. Also included are diagnoses based upon paraffin block specimens from concentrated spinal, pleural, or peritoneal fluid.

Code 4: Diagnoses stated to be microscopically confirmed but with no detailed information on method.

Code 5: Clinical diagnosis of cancer based on certain laboratory tests or marker studies which are clinically diagnostic for cancer. Examples are the presence of alpha-fetoprotein for liver cancer and an abnormal electrophoretic spike for multiple myeloma and Waldenstrom's macroglobulinemia. Although elevated PSA is non-diagnostic of cancer, if the physician uses the PSA as a basis for diagnosing prostate cancer with no other work-up, it should be recorded as code 5.

Code 6: Visualization includes diagnosis made at surgical exploration or by use of the various endoscopes (including colposcope, mediastinoscope, peritoneoscope). However, use only if such visualization is not supplemented by positive histology or positive cytology reports. Also use when gross autopsy findings are the only positive information.

Code 7: Cases with diagnostic radiology for which there is neither a positive histology nor a positive cytology report. "Other imaging techniques" include procedures such as ultrasound, computerized (axial) tomography (CT or CAT) scans, and magnetic resonance imaging (MRI).

Code 8: Cases diagnosed by clinical methods not mentioned above and for which there were no positive microscopic findings.

Code 9: Cases for which it is unknown whether or not they have been microscopically confirmed. Also included are all "Death Certificate Only" cases.

Diagnostic Procedures were collected for certain cases diagnosed between 1973 and 1987. See Appendix E for description of codes and coding rules.

A blank should be submitted in this field.

Coding System for Extent of Disease

Code
0 2-Digit Nonspecific Extent of Disease (1973-82)
1 2-Digit Site-Specific Extent of Disease (1973-82)
2 13-Digit (Expanded) Site-Specific Extent of Disease (1973-82)
3 4-Digit Extent of Disease (1983-87)
4 10-Digit Extent of Disease (1988+)

See Appendix E for details.

Use code '4' for all cases diagnosed as of January 1, 1988, and later, including the second (1992) and third (1998) editions of EOD.

SEER collects extent of disease (EOD) data and not a summarization or stage *per se*. This allows the data to be collapsed into different staging schemes and provides flexibility for consistency over time even if a staging scheme is changed. The major components of extent of disease are size of tumor, extension of the tumor, metastases, and lymph node involvement. Extent of disease codes are site-specific.

For detailed codes and coding instructions of the SEER Extent of Disease 1988 system, please refer to the *SEER Extent of Disease—1988: Codes and Coding Instructions, Third Edition* (1998) and previous editions. In addition, the *Comparative Staging Guide*, Third Edition (1998), provides information on how the EOD codes can be collapsed into staging categories for various staging systems.

The five extent of disease schemes are:

12.A 2-Digit Nonspecific Extent of Disease (1973-82)
12.B 2-Digit Site-Specific Extent of Disease (1973-82)
12.C 13-Digit (Expanded) Site-Specific (1973-82)
12.D 4-Digit Extent of Disease (1983-87)
12.E 10-Digit Extent of Disease (1988+)

Schemes 12.A-12.D were used for cases diagnosed between 1973 and 1987. See Appendix E for information on coding these fields.

The Extent of Disease scheme used for cases diagnosed 1988 forward is 12.E, 10-digit Extent of Disease. It is composed of:

Size of Primary Tumor (3 digits)
Extension (2 digits)
Lymph Nodes (1 digit)
Number of Positive Regional Lymph Nodes (2 digits)
Number of Regional Lymph Nodes Examined (2 digits)

An additional 2-digit field, 12.F, was included for prostate cancer cases diagnosed in 1995 and thereafter to code the pathologic assessment of tumor extension after prostatectomy.

12.F 2-Digit Pathologic Extension for Prostate (1995+)

The codes and coding instructions for the SEER Extent of Disease – 1988 are detailed in *SEER Extent of Disease—1988: Codes and Coding Instructions,* Third Edition (1998) and previous editions.

Time Period for EOD Information

Extent of Disease should be limited to all information available within four months of the date of diagnosis in the absence of disease progression or through completion of surgery(ies) in first course of treatment, whichever is longer. Metastasis known to have developed after the diagnosis was established should be excluded.

General Rules

The priority for using information is pathologic, operative, and clinical findings.

Autopsy reports may be used in coding extent of disease, applying the same rules for inclusion and exclusion.

In coding size of the tumor for patients treated with surgery, code the size given before any neoadjuvant treatment (preoperative radiation therapy, chemotherapy, hormone therapy or immunotherapy). Do NOT code size from the pathology report after any preoperative therapy is given.

For "Death Certificate Only" cases, excepting prostate, field 12.E is to be coded '9999999999.' For prostate cancer cases diagnosed in 1995 and thereafter, field 12.E is to be coded '9999099999' and field 12.F is to be coded '90.'

Blanks should be submitted in this field.

For the SEER Program, the concept of definitive treatment is limited to procedures directed toward cancer tissues whether of the primary site or metastases. If a specific therapy normally affects, controls, changes, removes, or destroys cancer tissue, it is classified as definitive treatment even if it cannot be considered curative for a particular patient in view of the extent of disease, incompleteness of treatment, lack of apparent response, size of dose, operative mortality, or other criteria.

Definition of "First Course" for all Malignancies Except Leukemias

Time period Rules for First Course of Treatment (in order of precedence)

1. If there is a documented, planned first course of treatment, first course ends at the completion of this treatment plan, regardless of the duration of the treatment plan.

2. If the patient is treated according to a facility's standards of practice, first course ends at the completion of the treatment.

3. If there is no documentation of a planned first course of treatment or standard of practice, first course of treatment includes all treatment received before disease progression or treatment failure. If it is undocumented whether there is disease progression/treatment failure and the treatment in question begins more than one year after diagnosis, assume that the treatment is not part of first course.

4. If a patient refuses all treatment modalities and does not change his/her mind within a reasonable time frame, or if the physician opts not to treat the patient, record that there was no treatment in the first course.

If treatment is given for symptoms/disease progression after a period of "watchful waiting," this treatment is not considered part of first course. For example, if a physician and patient choose a "wait and watch" approach to prostate cancer or chronic lymphocytic leukemia and the patient becomes symptomatic, consider the symptoms to be an indication that the disease has progressed and that any further treatment is not part of first course.

All modalities of treatment are included regardless of sequence or the degree of completion of any component method.

Definitions of "First Course" for Leukemias

When precise information permits, the first course of definitive treatment is to be related to the first "remission" as follows:

A. If a remission, complete or partial, is achieved during the first course of therapy for the leukemic process, include:

    1. All definitive therapy considered as "remission-inducing" for the first remission.

    2. All definitive therapy considered as "remission-maintaining" for the first remission, i.e., maintenance chemotherapy or irradiation to the central nervous system.

    3. Disregard all treatment administered to the patient after the relapse of the first remission.

B. If no remission is attained during the first course of therapy, record all treatment that attempted to induce the remission. Disregard all treatment administered to the patient as a subsequent attempt to induce remission.

No Cancer-Directed Therapy

"Cancer tissue" means proliferating malignant cells or an area of active production of malignant cells such as adjacent tissues or distant sites. In some instances, malignant cells are found in tissues where they did not originate and where they do not reproduce, such as malignant cells found at thoracentesis or paracentesis. A procedure removing malignant cells but not treating a site of proliferation of such cells is NOT to be considered cancer therapy for the purpose of this program.

If a patient receives ONLY symptomatic or supportive therapy, this is classified as "no cancer-directed therapy."

The term "palliative" may be used in two senses: (a) as meaning non-curative and (b) as meaning the alleviation of symptoms. Thus, some treatments termed palliative fall within the definition of cancer-directed treatment and some treat the patient but not the cancer. For example, radiation therapy to bony metastases is considered cancer-directed treatment because in addition to alleviating pain, the radiation also kills cancer cells in the bone.

Autopsy Only and Death Certificate Only Cases

For Autopsy Only cases:

1. Code Date Therapy Initiated (V.01) to '00000.'
2. For lung and leukemia diagnoses before 1998, code Radiation to the Brain and/or Central Nervous System (V.04) to '0'; for all other cases code '9.'
3. Code Reason for No Cancer-directed Surgery (V.02.G) to '2.'
4. Code all remaining treatment fields to zero.

For Death Certificate Only cases:

1. Code Date Therapy Initiated (V.01) to '999999.'
2. Code Site-specific Surgery (V.02A) to '99.'
3. Code Reason for No Cancer-directed Surgery (V.02.G) to '9.'
4. Code Radiation Sequence with Surgery (V.05) to '0.'
5. Code all remaining treatment fields to '9.'

Date Therapy Initiated

Date Therapy Initiated is a 6-digit field representing the date of initiation of the patient's first cancer-directed treatment for this cancer. The first two digits indicate the month; the last four digits identify the year.

Month

Code
01 January
02 February
03 March
04 April
05 May
06 June
07 July
08 August
09 September
10 October
11 November
12 December
99 Unknown

Year

All four digits of year
9999 Unknown

Code '000000' if there was no cancer-directed therapy. Use this code when incisional biopsy, exploratory surgery, or -otomy, -ostomy or bypass is the only procedure done and there is no cancer-directed therapy of any kind.

Code '000000' for "Autopsy Only" cases. Code '999999' for "Death Certificate Only" cases.

Code the date (month/year) that cancer-directed therapy was begun, whether on an inpatient or an outpatient basis.

CODE THE DATE OF THE EXCISIONAL BIOPSY as the date of first therapy whether followed by further definitive therapy or not. Code the date of the excisional biopsy whether or not residual cancer is found at time of later resection. If the biopsy is not stated to be excisional, but no residual cancer is found at a later resection, assume the biopsy was excisional.

In the *ABSENCE OF AN EXACT DATE OF TREATMENT,* the date of admission for that hospitalization during which the first cancer-directed therapy was begun is an acceptable entry.

Date Therapy Initiated is not to be based on the date of an incisional biopsy, exploratory surgery, or -otomy, -ostomy or bypass.

When an unproven therapy (e.g., laetrile) is the first course of therapy, code the date the patient started taking that therapy (these treatments are coded in the field "Other Cancer-Directed Therapy).

GENERAL INSTRUCTIONS FOR CODING SITE-SPECIFIC SURGERY

Effective with cases diagnosed January 1, 1998, and after, for each primary site, the site-specific surgery scheme consists of four data fields.

V.02.A	Surgery of Primary Site	2 digits
V.02.B	Scope of Regional Lymph Node Surgery	1 digit
V.02.C	Number of Regional Lymph Nodes Examined	2 digits
V.02.D	Surgery of Other Regional Site(s), Distant Site(s), or Distant Lymph Node(s)	1 digit

In addition, for breast cancer, a fifth field, Reconstruction--First Course is recorded.

V.02.E	Reconstruction--First Course (breast only)	1 digit

These codes for these fields are included as Appendix C of this manual.

For the fields listed above SEER codes are identical to those in the *Standards of the Commission on Cancer, Volume II: Standards Registry Operations and Data Standards, Appendix D, 1/98 revision.*

Once it is determined that cancer-directed surgery was performed, use the best information in the operative/pathology reports to determine the operative procedure. Do *NOT* depend on the name of the procedure since it may be incomplete.

If the operative report is unclear as to what was excised or if there is a discrepancy between the operative and pathology reports, use the pathology report, unless there is reason to doubt its accuracy.

If a surgical procedure removes the remaining portion of an organ which had been partially resected previously for any condition, code as total removal of the organ. If none of the primary organ remains, the code should indicate that this is the case.

For example:

1. Resection of a stomach which had been partially excised previously is coded as total removal of stomach.
2. Removal of a cervical stump is coded as total removal of uterus.
3. Lobectomy of a lung with a previous wedge resection is coded as total removal of lobe.

For purposes of this program a lymph node dissection is defined as any lymph node dissection done within the first course of cancer-directed therapy. Any lymph node dissection done as a separate procedure within the first course of cancer-directed therapy is to be coded.

If an excisional biopsy is followed by "re-excision" or "wide excision" within the first course of cancer-directed therapy, include that later information in coding site-specific surgery.

If multiple primaries are excised at the same time, code the appropriate surgery for each site. *For example:* 1) if a total abdominal hysterectomy was done for a patient with <u>two</u> primaries, one of the cervix and one of the endometrium, code each as having had a total abdominal hysterectomy. 2) If a total colectomy was done for a patient with multiple primaries in several segments of the colon, code total colectomy for each of the primary segments.

Ignore surgical approach in coding procedures. Ignore surgical margins when coding procedures.

GENERAL INSTRUCTIONS FOR CODING SITE-SPECIFIC SURGERY (cont.)

Ignore the use of laser if used only for the initial incision.

Surgical procedures performed solely for the purpose of establishing a diagnosis/stage or for the relief of symptoms, and procedures such as brushings, washings, and aspiration of cells as well as hematologic findings (peripheral blood smears) are not considered cancer therapy for the purposes of this program and are not to be coded.

Surgery for extranodal lymphomas should be coded using the scheme for the extranodal site. *For example:* a lymphoma of the stomach is to be coded using the scheme for stomach.

Surgery of Primary Site

Record surgeries only of the primary site. Surgery to remove regional tissue or organs is coded in this field only if the tissue/organs are removed with the primary site in an **en bloc** resection. An en bloc resection is the removal of organs in one piece at one time.

Example When a patient has a modified radical mastectomy, since the breast and axillary contents are removed in one piece (en bloc), surgery of primary site is coded as a modified radical mastectomy ('50') even if the pathologist finds no nodes in the specimen.

The range of codes from '00' to '84' are hierarchical. If more than one code describes the procedure, use the numerically higher code.

Record a non en bloc resection of a secondary or metastatic site in the data field "Surgery of Other Regional Site(s), Distant Site(s) or Distant Lymph Node(s)."

A single set of fields summarizing surgical treatment during the first course should be reported to SEER. Use the following guidelines to determine the priority of codes:

- If the patient has multiple cancer-directed surgeries of the primary site, code the most invasive, definitive surgery (numerically highest code).

  Example Patient has a colonoscopy with removal of a polyp in the sigmoid colon. The pathology report identifies carcinoma extending into the stalk ("Surgery of Primary Site" code '27'). A week later, the patient has a hemicolectomy ("Surgery of Primary Site" code '40'). Code the hemicolectomy since it is the most invasive, definitive surgery and has the numerically higher code.

- If no primary site surgical procedure was done, code '00.'

Priority of Codes

In the Surgery of Primary Site codes, the following priorities hold:

- Codes '10' - '90' have priority over code '99.'
- Codes '10' - '84' have priority over codes '90' and '99.'
- Codes '10' - '79' have priority over codes '80,' '90,' and '99,' where '80' is site-specific surgery, not otherwise specified (for example, prostatectomy, NOS)

Site-Specific Surgery Codes

Site-Specific Surgery Codes are available in Appendix C for the following sites:

C00.0 - C06.9	Lip and oral cavity
C07.9 - C08.9	Parotid and other unspecified salivary glands
C09.0 - C14.0	Pharynx
C15.0 - C15.9	Esophagus
C16.0 - C16.9	Stomach
C18.0 - C18.9	Colon
C19.9	Rectosigmoid
C20.9	Rectum
C21.0 - C21.8	Anus
C22.0 - C22.1	Liver and intrahepatic bile ducts
C25.0 - C25.9	Pancreas
C32.0 - C32.9	Larynx
C34.0 - C34.9	Lung
C40.0 - C41.9, C47.0 - C47.9, C49.0 - C49.9	Bones, joints , and articular cartilage; peripheral nerves and autonomic nervous system; connective, subcutaneous and other soft tissues
C42.2, C77.0 - C77.9	Spleen and lymph nodes
C44.0 - C44.9	Skin
C50.0 - C50.9	Breast
C53.0 - C53.9	Cervix uteri
C54.0 - C55.9	Corpus uteri
C56.9	Ovary
C61.9	Prostate
C62.0 - C62.9	Testis
C64.9 - C66.9	Kidney, renal pelvis, and ureter
C67.0 - C67.9	Bladder
C70.0 - C72.9	Brain and other parts of central nervous system
C73.9	Thyroid

All Other Sites

Surgeries for all other primary cancers should be coded using the general surgery code scheme for All Other Sites at the end of Appendix C. These primaries include:

C14.1 - C14.8	Other and Ill-defined Sites in Lip, Oral Cavity and Pharynx
C17.0 - C17.9	Small Intestine
C23.9	Gallbladder
C24.0 - C24.9	Extrahepatic Bile Duct, Ampulla of Vater; Overlapping Lesion of Biliary Tract, Biliary Tract, NOS
C26.0 - C26.9	Intestinal Tract, NOS, Overlapping Lesion of Digestive System, Gastrointestinal Tract, NOS
C30.0 - C 30.1	Nasal Cavity, Middle Ear
C31.0 - C31.9	Accessory (paranasal) Sinuses
C33.9	Trachea
C37.9	Thymus
C38.0 - C38.8	Heart, Mediastinum, Pleura
C39.0 - C39.9	Other and Ill-defined Sites within Respiratory System and Intrathoracic Organs

All Other Sites, continued

C42.0 - C42.1	Blood, Bone Marrow
C42.3 - C42.4	Reticuloendothelial System, NOS, Hematopoietic System, NOS
C48.0 - C48.8	Retroperitoneum and Peritoneum
C51.0 - C51.9	Vulva
C52.9	Vagina
C57.0 - C57.9	Other and Unspecified Female Genital Organs
C58.9	Placenta
C60.0 - C60.9	Penis
C63.0 - C63.9	Other and Unspecified Male Genital Organs
C68.0 - C68.9	Other and Unspecified Urinary Organs
C69.0 - C69.9	Eye and Adnexa
C74.0 - C75.9	Adrenal Gland, Other Endocrine Glands and Related Structures
C76.0 - C76.8	Other and Ill-defined Sites
C80.9	Unknown Primary Site

Scope of Regional Lymph Node Surgery

See Appendix C for site-specific codes for this field.

For the majority of sites, "Scope of Regional Lymph Node Surgery" defines the removal of regional lymph node(s). There is no minimum number of nodes that must be removed. If at least one regional lymph node was removed, the code for this field must be in the range of '1' - '5.' If a regional lymph node was aspirated, code to '1,' regional lymph node(s) removed, NOS.

For head and neck sites, this field describes neck dissections. Codes '2' - '5' indicate only that a neck dissection procedure was done, they do not imply that nodes were found during the pathologic examination of the surgical specimen. Code the neck dissection even if no nodes were found in the specimen.

The codes are hierarchical. If only one procedure can be recorded, code the procedure that is numerically higher.

Example A patient with a head and neck primary has a lymph node biopsy (code '1') followed by a limited neck dissection (code 3). Code the limited neck dissection (code '3').

If a patient has a modified radical neck dissection, record code '4' (modified radical neck dissection) rather than the generic code "neck dissection, NOS" (code '2').

A list identifies the regional lymph nodes for each site in Appendix C. Any other nodes are distant, code in the data field "Surgery of Other Regional Site(s), Distant Site(s) or Distant Lymph Node(s)."

If no cancer-directed surgical procedure was performed, code '0.'

Priority of Codes

In the Scope of Regional Lymph Node Surgery codes, the following priorities hold:

- Codes '1' - '8' have priority over code '0' and '9.'
- In the range of codes '1' - '8,' the numerically higher code has priority.

Number of Regional Lymph Nodes Examined

See Appendix C for site-specific codes for this field.

Record the number of regional lymph nodes examined by the pathologist. **DO NOT** add numbers of nodes removed at different surgical events.

If no regional lymph nodes are identified in the pathology report, code 00 even if the surgical procedure includes a lymph node dissection (i.e., modified radical mastectomy) or if the operative report documents removal of nodes.

Since SEER collects only one Number of Regional Lymph Nodes Examined field, record the number of lymph nodes examined from the definitive regional lymph node surgery performed during first course of treatment. For example, if a patient has a cervical node biopsy for diagnosis and later undergoes a radical neck dissection during first course, record the number of lymph nodes examined from the radical neck dissection.

Because this field is not cumulative and not affected by timing issues, it does not replace or duplicate the field "Pathologic Review of Regional Lymph Nodes" in the EOD coding section. Do not copy the values from one field to the other.

Priority of Codes

In the Number of Regional Lymph Nodes Examined codes, the following priorities hold:

- If lymph node surgery is done at the same time as definitive surgery, priority is given to the information connected with the most definitive surgery. Use the priority order listed under "Surgery of Primary Site" to determine the most definitive surgery of primary site.
- If lymph node surgery is done at a different time than the definitive surgery, priority is given to the code connected with the most definitive lymph node surgery. Use the priority order listed under "Scope of Regional Lymph Node Surgery" to determine the most definitive lymph node surgery.

Surgery of Other Regional Site(s), Distant Site(s), or Distant Lymph Node(s)

See Appendix C for site-specific codes for this field.

"Surgery of Other Regional Site(s), Distant Site(s) or Distant Lymph Node(s)" describes the removal of tissue(s) or organ(s) other than the primary tumor or organ of origin. The tissue or organ is not removed in continuity with the primary tumor (not en bloc).

Example: A patient has an excisional biopsy of a hard palate lesion that is removed from the roof of the mouth and a resection of a metastatic lung nodule during the same surgical event. Code the resection of the lung nodule as '6' (distant site).

Code the removal of non-primary tissue which was removed because the surgeon suspected it was involved with malignancy even if the pathology is negative.

DO NOT CODE the incidental removal of tissue. Incidental is defined as tissue removed for reasons other than the malignancy. For example: During a colon resection, the surgeon noted that the patient had cholelithiasis and removed the gall bladder. Do not code removal of the gall bladder.

Priority of Codes

In the Surgery of Other Regional Site(s), Distant Site(s), or Distant Lymph Node(s) codes, the following priorities hold:

- Codes '1' - '8' have priority over code '0' and '9.'
- In the range of codes '1' - '8,' the numerically higher code has priority.

Reconstruction--First Course

The SEER Program collects information in this field only for breast cancer, and only for reconstruction begun as part of first course treatment. See the Introduction to Section V for a discussion of the time limitations on first course of treatment.

Code

0 No reconstruction/restoration

1 Reconstruction, NOS (unknown if flap)

2 Implant; reconstruction WITHOUT flap

3 Reconstruction WITH flap, NOS
- 4 Latissimus dorsi flap
- 5 Abdominus recti flap
- 6 Flap, NOS plus implant
- 7 Latissimus dorsi flap plus implant
- 8 Abdominus recti plus implant

9 Unknown; not stated; death certificate only

For all other primary sites, enter a blank in this field.

These codes are repeated in Appendix C.

"Reconstruction--First Course" is a surgical procedure that improves the shape and appearance or function of body structures that are missing, defective, damaged, or misshapen by cancer or cancer-directed therapies.

"Reconstruction--First Course" is limited to procedures **started** during the first course of cancer-directed therapy. The insertion of a tissue expander is often the beginning of the reconstructive procedure for breast cancer. Some reconstructive/restorative procedures involve several surgical events. Code as "Reconstruction--First Course" if the first event occurred during the first course of treatment.

Code only those procedures listed above. Other reconstructive/restorative procedures for breast cancer, such as tattooing, should not be coded.

Priority of Codes

In the Reconstruction--First Course codes, the following priorities hold:

- Codes '1' - '8' have priority over code '0' and '9.'
- In the range of codes '1' - '8,' the numerically higher code has priority.

Site-Specific Surgery (1983-1997)

Code
For cases diagnosed 1/1/98 and after
Blank Not applicable

For cases diagnosed before 1998, refer to Appendix D for specific codes.

This two-digit field for site-specific surgery was collected by the SEER Program from 1983 through 1997. Site-specific surgery coding has been replaced by 5 fields (V.02.A through V.02.E), but the data in the field has been preserved for historical purposes.

All of the general instructions for coding site-specific surgery that were effective for cases diagnosed prior to January 1998 (pages 119–120 and 122–123) apply to this field. In addition, the following instructions also apply:

Surgical procedures performed solely for the purpose of establishing a diagnosis/stage or for the relief of symptoms are to be coded in the Site-Specific Surgery field using codes '01' - '07' but are not considered cancer-directed surgery.

Procedures such as brushings, washings, and aspiration of cells as well as hematologic findings (peripheral blood smears) are not surgical procedures.

Removal of fewer than four lymph nodes with no other cancer-directed surgery performed should be considered diagnostic, not cancer-directed surgery. In the rare instance where it is stated to be cancer-directed surgery, code appropriately.

Examples of exploratory surgery are:

Celiotomy	Laparotomy
Cystotomy	Nephrotomy
Gastrotomy	Thoracotomy

Examples of bypass surgery are:

Colostomy	Nephrostomy
Esophagostomy	Tracheostomy
Gastrostomy	Urethrostomy

Priority of Codes

In the Site-Specific Surgery code schemes, except where otherwise noted, the following priorities hold:

1. Codes '10' - '90' over codes '00' - '09.'
2. Codes '10' - '78' over codes '80' - '90.'
3. In the range '10' - '78' the higher code has priority.
4. Codes '01' - '07' over code '09.'
5. In the range '01' - '06' the higher code has priority.
6. Codes '01' - '07' and '09' cannot be used in combination with codes '10' - '90.'
7. Surgery of primary not included in any category should be coded '90.'
8. Codes '01' - '06' have priority over code '07.'

Reconstructive Surgery

Second digit is to be coded '8' when reconstructive surgery of the primary site is done as part of the planned first course of therapy.

Examples of reconstructive surgery are:
- Ileal pouch-anal anastomosis for colon (other anastomoses are not included)
- Facial reconstruction for head and neck tumors
- Breast reconstruction

The following examples are not considered reconstructive surgery:
- Colostomy
- Skin grafting

Reason for No Cancer-Directed Surgery

Code
0 Cancer-directed surgery performed
1 Cancer-directed surgery not recommended
2 Contraindicated due to other conditions; Autopsy Only case
6 Unknown reason for no cancer-directed surgery
7 Patient or patient's guardian refused
8 Recommended, unknown if done
9 Unknown if cancer-directed surgery performed; Death Certificate Only case

If the site-specific surgery is coded, then code the Reason for No Cancer-Directed Surgery as '0.'

Use code '7' if surgery was one of the treatment options and the patient or the physician opted for another modality.

Radiation

Code
0 None
1 Beam radiation
2 Radioactive implants
3 Radioisotopes
4 Combination of 1 with 2 or 3
5 Radiation, NOS – method or source not specified
7 Patient or patient's guardian refused radiation therapy
8 Radiation recommended, unknown if administered
9 Unknown

Record any type of radiation therapy in this field regardless of source, field being treated, or intent of treatment (curative or palliative). For cases diagnosed 1/1/1998 and after, include prophylactic radiation to the brain and/or central nervous system in this field.

Code '1' for beam radiation directed to cancer tissue regardless of source of radiation. Included is treatment via:
Xray
Cobalt
Linear accelerator
Neutron beam
Betatron
Spray radiation
Stereotactic radiosurgery such as gamma knife and proton beam.

Code '2' for all interstitial implants, molds, seeds, needles, or intracavitary applicators of radioactive material such as cesium, radium, radon, or radioactive gold.

Code '3' for internal use of radioactive isotopes, such as I-131 or P-32, when given orally, intracavitarily, or by intravenous injection.

For lung and leukemia cases diagnosed before 1998 only, code radiation to the brain and/or central nervous system in the Radiation to the Brain and/or Central Nervous System field. For lung and leukemia diagnosed in 1998 and after, code radiation to the brain and CNS as radiation in this field.

Radiation to the Brain and/or Central Nervous System

| This field is to be coded as 9 for all cases diagnosed in 1998 and thereafter.

| This field is being maintained for historical purposes. Effective with cases diagnosed January 1, 1998, and after, | ALL radiation to the brain and/or central nervous system is to be coded to Radiation (Section V, Field 03), | regardless of the primary site.

| For cases diagnosed before 1998, information contained in this field should be recoded to the Radiation field.

| *For Lung and Leukemia Cases Only (before 1998)*

Code
0 No radiation to the brain and/or central nervous system
1 Radiation
7 Patient or patient's guardian refused
8 Radiation recommended, unknown if administered
9 Unknown

For All Other Cases

9 Not applicable

| For lung and leukemia diagnoses only (before 1998)
1. code ‘0’ for all “Autopsy Only” cases
2. code ‘9’ for all “Death Certificate Only” cases
3. code ‘0’ -‘9’ for all other cases

Radiation should be coded whether or not there are known metastases to the brain or central nervous system.

For all sites except lung and leukemia diagnoses, code ‘9.’

Radiation Sequence with Surgery

Code
0 No radiation and/or cancer-directed surgery
2 Radiation before surgery
3 Radiation after surgery
4 Radiation both before and after surgery
5 Intraoperative radiation
6 Intraoperative radiation with other radiation given before or after surgery
9 Sequence unknown, but both surgery and radiation were given

If first course of treatment consisted of both cancer-directed surgery and radiation, use codes '2' - '9.'

For cases diagnosed after 1/1/98, use codes '2' - '9' for a case with Radiation codes '1' - '5' AND ANY of the following:

Surgery of Primary Site codes '10' - '90'
Scope of Regional Lymph Node Surgery code '1' - '8.'
Surgery of Other Regional Site(s), Distant Site(s), or Distant Lymph Node(s) codes '1' - '8.'

Use code '0' in this field if the Radiation code is '0' or '7' - '9' and/or there is no cancer directed surgery performed. No cancer-directed surgery is defined as Surgery of Primary Site code '00' or '99' AND Scope of Regional Lymph Node Surgery code '0' or '9' AND Surgery of Other Regional Site(s), Distant Site(s), or Distant Lymph Node(s) code '0' or '9.'

For cases diagnosed before 1998, radiation coded in either of the fields, Radiation OR Radiation to the Brain and/or Central Nervous System, is to be considered.

For cases where surgery was not cancer-directed, code Radiation Sequence with Surgery as '0' regardless of whether radiation or radiation to brain was administered. If radiation was not given or if radiation was refused, code Radiation Sequence with Surgery as '0' regardless of the type of surgery performed.

Chemotherapy

0 None
1 Chemotherapy, NOS
2 Chemotherapy, single agent
3 Chemotherapy, multiple agents (combination regimen)
7 Patient or patient's guardian refused chemotherapy
8 Chemotherapy recommended, unknown if administered
9 Unknown

Code any chemical which is administered to treat cancer tissue and which is not considered to achieve its effect through change of the hormone balance. Only the agent, not the method of administration, is to be considered in coding.

Two or more single agents given at separate times during the first course of cancer-directed therapy are considered a combination regimen.

Codes '1' - '3' have priority over codes '0,' '7' - '9.'

In the range '1' - '3,' the higher code has priority. Combination chemotherapy containing prednisone (a hormone) should be coded in this field by the number of chemotherapy agents in the combination. For example, if the patient received alkeran and prednisone, the chemotherapy field would be coded to '2' and the hormone therapy field would be coded to '1.' If the regimen contained oncovin, cyclophosphamide and prednisone, the chemotherapy field would be coded to '3' and the hormone field would be coded to '1.'

Code '8' means that a physician recommended chemotherapy but there is no indication in the record that the patient started the treatment.

Code '9' means that there is no indication in the record that chemotherapy was recommended or started.

Refer to *Self-Instructional Manual for Tumor Registrars: Book 8 - Antineoplastic Drugs* if in doubt as to which agents to include.

Hormone Therapy

Code
0 None
1 Hormones (including NOS and antihormones)
2 Endocrine surgery and/or endocrine radiation (if cancer is of another site)
3 Combination of 1 and 2
7 Patient or patient's guardian refused hormonal therapy
8 Hormonal therapy recommended, unknown if administered
9 Unknown

| This field was formerly called Endocrine (Hormone/Steroid) Therapy.

Code any therapy which is administered to treat cancer tissue and which is considered to achieve its effect on cancer tissue through change of the hormone balance. Included are the administration of hormones, agents acting via hormonal mechanisms, antihormones, or steroids, surgery for hormonal effect on cancer tissue, and radiation for hormonal effect on cancer tissue.

Hormones, agents acting via hormonal mechanisms, and antihormones (cancer-directed only) are to be coded for all sites (primary and metastatic).

Refer to *Self-Instructional Manual for Tumor Registrars: Book 8 - Antineoplastic Drugs* if in doubt as to which drugs to include. *For example:* leuprolide and flutamide are both agents acting via hormonal mechanisms and should be coded as hormones.

Adrenocorticotrophic hormones (cancer-directed only) are coded for leukemias, lymphomas, multiple myelomas, breast, prostate. Exception: Prednisone given in combination with chemotherapy, e.g., MOPP or COPP, is coded as hormone therapy for any site unless it is specified that prednisone was given for other reasons.

Endocrine surgery or radiation is to be coded for breast and prostate only:

Breast:	Prostate:
oophorectomy	orchiectomy
adrenalectomy	adrenalectomy
hypophysectomy	hypophysectomy

Both glands or the remaining gland of paired glands must be removed or irradiated for the procedure to be considered endocrine surgery or radiation.

Code ‘8’ means that a physician recommended hormone therapy but there is no indication in the record that the patient started the treatment.

Code ‘9’ means that there is no indication in the record that hormone therapy was recommended or started.

Immunotherapy

Code
0 None
1 Biological response modifier
2 Bone marrow transplant - autologous
3 Bone marrow transplant - allogenic
4 Bone marrow transplant, NOS
5 Stem cell transplant
6 Combination of 1 plus 2, 3, 4 or 5
7 Patient or patient's guardian refused biological response modifier
8 Biological response modifier recommended, unknown if administered
9 Unknown

This field was formerly called "Biological Response Modifiers."

`Biological response modifier' is a generic term which covers all chemical or biological agents that alter the immune system or change the host response (defense mechanism) to the cancer. Examples of biological response modifiers (immunotherapy) are:

Allogeneic cells	Interleukin	Pyran copolymer
BCG	LAK cells	Thymosin
C-Parvum	Levamisole	Vaccine therapy
Interferon	MVE2	Virus Therapy

Codes '2' though '6' are effective with cases diagnosed 1/1/96 and after. Code '5' includes both autologous and allogenic transplants.

Code '8' means that a physician recommended immunotherapy but there is no indication in the record that the patient started the treatment.

Code '9' means that there is no indication in the record that immunotherapy was recommended or started.

Refer to *Self-Instructional Manual for Tumor Registrars: Book 8 - Antineoplastic Drugs* if in doubt as to which drugs to include.

Other Cancer-Directed Therapy

Code
0 No other cancer-directed therapy except as coded elsewhere
1 Other cancer-directed therapy
2 Other experimental cancer-directed therapy (not included elsewhere)
3 Double-blind clinical trial, code not yet broken
6 Unproven therapy (including laetrile, krebiozen, etc.)
7 Patient or patient's guardian refused therapy which would have been coded 1-3 above
8 Other cancer-directed therapy recommended, unknown if administered
9 Unknown

Code '1,' Other Cancer-Directed Therapy includes any and all cancer-directed therapy not appropriately assigned to the other specific treatment codes. Examples are hyperbaric oxygen (as adjunct to definitive treatment), hyperthermia, PUVA (psoralen and ultraviolet A light) and arterial block for renal cell carcinoma.

Code '2,' includes any experimental or newly developed method of treatment differing greatly from proven types of cancer therapy.

Code '3,' double-blind clinical trial information: After the code is broken, review and recode therapy, as necessary, according to the treatment actually administered.

Do not code ancillary drugs in this field.

Use code '6' for unconventional methods (for example, laetrile) whether they are given alone or in combination with cancer-directed treatments. Use code '6' for alternative and complementary therapies ONLY IF the patient receives no other type of treatment (for example, do not code megavitamins if the patient also received cancer-directed surgery). Code '6' includes *but is not limited to*

Unconventional Methods

- Cancell
- Carnivora
- Glyoxylide
- Iscador
- Koch synthetic antitoxins
- Krebiozen
- Laetrile
- Malonide
- Parabenzoquinone

Reference: NCI CancerNet articles on unconventional methods

Alternative and Complementary Therapies

Alternative Systems
- Acupuncture
- Ayurveda
- Environmental medicine
- Homeopathic medicine
- Natural Products
- Native American, Latin American, or traditional Oriental medicine

Bioelectromagnetic Applications
- Blue light treatment
- Electroacupuncture
- Magnetoresonance spectroscopy

Diet, Nutrition, Lifestyle
- Changes in lifestyle
- Diet
- Gerson Therapy
- Macrobiotics
- Megavitimins
- Nutritional Supplements

Alternative and Complementary Therapies, continued

Herbal Medicine
- Ginger
- Ginkgo Biloba extract
- Ginseng root

Manual Healing
- Acupressure
- Biofield Therapeutics
- Massage therapy
- Reflexology
- Zone therapy

Mind/Body Control
- Biofeedback
- Humor therapy
- Meditation
- Relaxation techniques
- Yoga

Pharmacological and Biological Treatments
- Anti-oxidizing agents
- Cell treatment
- Metabolic therapy
- Oxidizing agents

Reference: National Institutes of Health Office of Alternative Medicine

Code '8' means that a physician recommended other cancer-directed therapy but there is no indication in the record that the patient started the treatment.

Code '9' means that there is no indication in the record that other cancer-directed therapy was recommended or started.

Blanks should be submitted in this field.

Follow-up of cancer patients provides the following data needed for survival analysis: the vital status of the patient, the date the vital status was determined, and the underlying cause of death, if the person is dead. The fields in the Follow-up Information section provide this information. SEER requires that this information be updated annually for living patients.

DATE OF LAST FOLLOW-UP OR OF DEATH

Section VI, Field 01

The date of last follow-up or death consists of six digits: the first two digits indicate the appropriate month and the last four digits identify the year.

Month

Code
01 January
02 February
03 March
04 April
05 May
06 June
07 July
08 August
09 September
10 October
11 November
12 December
99 Unknown

Year

Code
All four digits of year

This field pertains to the date of the actual information and not the date the follow-up inquiry was forwarded or the date the follow-up report was received.

If there is no new follow-up information, the entry is the same as that of the previous follow-up for this patient. If no follow-up information is ever received, code the latest date the patient was seen.

This field pertains to the patient and not to the cancer. Thus, for a patient with more than one malignancy, all records for that patient should have the same date in this field.

Vital Status

Code
1 Alive
4 Dead

Vital status specifies whether the patient was alive or dead at the last follow-up.

This field pertains to the patient and not to the cancer. Thus, for a patient with more than one malignancy, all records for that patient should have the same code in this field.

ICD Code Revision Used for Cause of Death

Code
0 Patient alive at last follow-up
1 ICD-10
8 ICDA-8
9 ICD-9

Underlying Cause of Death

Code	
0000	Patient alive at last contact
7777	State death certificate or listing not available
7797	State death certificate or listing available, but underlying cause of death not coded.

All other cases: ICDA-8, ICD-9, or ICD-10 Underlying Cause of Death Code

The underlying cause of death as coded by a State Health Department is to be used. Even when the code is believed to be in error, the entry as coded by a State Health Department is to be used.

Underlying cause of death codes usually have four digits. Some codes may have an optional fifth digit. Ignore the fifth digit.

Ignore any decimal points when transferring codes.

If a fourth digit for the underlying cause of death is "X," "blank," or "-", use '9' for the fourth digit.

All underlying causes of death should be left-justified.

It is not necessary to have a copy of the death certificate as long as the official code for the underlying cause of death is available.

If the coded underlying cause is not available, do not attempt to code it; use code '7797.'

From January 1, 1979, forward, all deaths are coded using the *International Classification of Diseases*, 1975 Revision (ICD-9). In this volume, the "E" code is a supplemental code but is used as the primary if, and only if, the morbid condition is classifiable to Chapter XVII (Injury and Poisoning). Do not include the "E" in the code submitted to SEER.

Examples

Underlying Cause of Death	ICDA-8 or ICD-9	Code
Cancer of the thyroid	193	1939
Acute appendicitis with peritonitis	540.0	5400
Adenocarcinoma of stomach	151.9	1519
Fall on ice	E885	8859

Beginning in 1999, all deaths will be coded using the *International Statistical Classification of Diseases and Related Health Problems*, Tenth Revision (ICD-10). The ICD-10 codes consist of four characters: a letter followed by 2 or 3 digits.

Examples

Underlying Cause of Death	ICD-10	Code
Cancer of the thyroid	C73	C739
Acute appendicitis with peritonitis	K35.0	K350
Adenocarcinoma of stomach	C16.9	C169

Type of Follow-up

Code
1 "Autopsy Only" or "Death Certificate Only" case
2 Active follow-up case
3 In situ cancer of the cervix uteri only
4 Case not originally in active follow-up, but in active follow-up now (San Francisco-Oakland only)

All cases other than in situ cancers of the cervix uteri must be followed annually.

If information is received on a person with an in situ cancer of the cervix uteri diagnosed before 1/1/96, the follow-up information should be updated. (Carcinoma in situ of the cervix cases diagnosed as of 1/1/96 are not reportable and need not be followed.)

Blanks should be submitted in this field.

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Each calendar year the SEER participants submit to NCI records for all persons/cancers diagnosed since the participant started reporting. Many of these records have been updated with information received by the participant since the prior data submission. At NCI, the information is edited to ensure correctness and comparability of reporting. Some of these edits reflect conditions that require additional review. To eliminate the need to review the same cases each submission, the Administrative Codes section contains a set of indicators used to specify that the information on a record has already been reviewed.

Site/Type Interfield Review (Interfield Edit 25)

Code
blank Not reviewed
1 Reviewed: The coding of an unusual combination of primary site and histologic type has been reviewed.

Histology/Behavior Interfield Review (Field Item Edit MORPH)

Code	
blank	Not reviewed
1	Reviewed: The behavior code of the histology is designated as benign or uncertain in ICD-O-2, and the pathologist states the primary to be "in situ" or "malignant" (flag for SEER Morphology edits).
2	Reviewed: The behavior is in situ, but the case is not microscopically confirmed (flag for SEER edit IF31).
3	Reviewed: Conditions 1 and 2 above both apply.

Age/Site/Histology Interfield Review (Interfield Edit 15)

Code	
blank	Not reviewed
1	Reviewed: An unusual occurrence of a particular site/histology combination for a given age group has been reviewed.

Sequence Number/Diagnostic Confirmation Interfield Review (Interfield Edit 23)

Code

blank Not reviewed

1 Reviewed: Multiple primaries of special sites in which at least one diagnosis has not been microscopically confirmed have been reviewed.

Site/Histology/Laterality/Sequence Interrecord Review (Interrecord Edit 09)

blank Not reviewed
1 Reviewed: Multiple primaries of the same histology (3-digit) in the same primary site group have been reviewed.

Surgery/Diagnostic Confirmation Interfield Review (Interfield Edit 46)

Code	
blank	Not reviewed
1	Reviewed: A patient who had cancer-directed surgery, but the tissue removed was not sufficient for microscopic confirmation.

Type of Reporting Source/Sequence Number Interfield Review (Interfield Edit 04)

blank Not reviewed
1 Reviewed: A second or subsequent primary with a reporting source of Death Certificate Only has been reviewed and is indeed an independent primary.

Sequence Number/Ill-defined Site Interfield Review (Interfield Edit 22)

Code	
blank	Not reviewed
1	Reviewed: A second or subsequent primary reported with an ill-defined primary site (C76.0-C76.8, C80.9) has been reviewed and is indeed an independent primary.

Leukemia or Lymphoma/Diagnostic Confirmation Interfield Review (Interfield Edit 48)

Code	
blank	Not reviewed
1	Reviewed: A patient was diagnosed with leukemia or lymphoma and the diagnosis was not microscopically confirmed.

Override Flag for Site/Behavior (IF39)

Code	
blank	Not reviewed
1	Reviewed: A patient had an in situ cancer of a non-specific site and no further information about the primary site is available.

The IF39 edit does not allow in situ cases of non-specific sites, such as gastrointestinal tract, NOS; uterus, NOS; female genital tract, NOS; male genital organs, NOS; and others. This override indicates that the conflict has been reviewed.

This is a new override flag in the third edition of the code manual, but the flag may be applied to cases from any year.

Override Flag for Site/EOD/Diagnosis Date (IF40)

Code

blank Not reviewed

1 Reviewed: A patient had "localized" disease with a non-specific site and no further information about the primary site is available.

The IF40 edit does not allow "localized" disease with non-specific sites, such as mouth, NOS; colon, NOS (except histology 8220); bone, NOS; female genital system, NOS; male genital organs, NOS; and others. This override indicates that the conflict has been reviewed.

This is a new override flag in the third edition of the code manual, but the flag may be applied to cases from any year.

Override Flag for Site/Laterality/EOD (IF41)

Code
blank Not reviewed
1 Reviewed: A patient had laterality coded non-specifically and EOD coded specifically.

The IF41 edit for paired organs does not allow EOD to be specified as in situ, localized, or regional by direct extension if laterality is coded as "bilateral, side unknown" or "laterality unknown." This override indicates that the conflict has been reviewed.

This is a new override flag in the third edition of the code manual, but the flag may be applied to cases from any year.

Override Flag for Site/Laterality/Morphology (IF42)

Code	
blank	Not reviewed
1	Reviewed: A patient had behavior code of "in situ" and laterality is not stated as right: origin of primary; left: origin of primary; or only one side involved, right or left origin not specified.

The IF42 edit does not allow behavior code of "in situ" with non-specific laterality codes. This override indicates that the conflict has been reviewed.

This is a new override flag in the third edition of the code manual, but the flag may be applied to cases from any year.

Primary Site (1973-1991)

When ICD-O-2 went into effect for 1992 diagnoses, the primary site codes for cases diagnosed during 1973-91 were machine converted to ICD-O-2 codes. This field contains the primary site code before conversion for these cases.

Morphology (1973-1991)

When ICD-O-2 went into effect for 1992 diagnoses, the morphology codes for cases diagnosed during 1973-91 were machine converted to ICD-O-2 codes. This field contains the morphology code before conversion for these cases.

Review Flag for 1973-1991 Cases

Code

0 Primary site and morphology originally coded in ICD-O-2
1 Primary site and morphology converted without review
2 Primary site converted with review; morphology machine converted without review
3 Primary site machine converted without review; morphology converted with review
4 Primary site and morphology converted with review

The Review Flag for 1973-91 Cases specifies how the conversion of topography from the *International Classification of Diseases for Oncology*, First Edition, codes to the *International Classification of Diseases for Oncology*, Second Edition, codes was achieved – by machine conversion only or with hand review. Similarly, it specifies how the conversion of morphology from the *International Classification of Diseases for Oncology*, First Edition, codes or either of the Field Trial editions (1986 or March 1988) to the *International Classification of Diseases for Oncology*, Second Edition, codes was achieved – by machine conversion only or with hand review.

Blanks should be submitted in this field.